

DOCUMENT RESUME

ED 077 679

SE 016 036

AUTHOR Pratt, James
TITLE Excerpt From the AIA Environmental Education Guidebook.
INSTITUTION American Inst. of Architects, Washington, D.C.
PUB DATE Mar 70
NOTE 110p.
EDRS PRICE MF-\$0.65 HC-\$6.58
DESCRIPTORS *Annotated Bibliographies; Audiovisual Aids; Design; *Environmental Education; *Guides; *Information Sources; Instructional Materials; Programs; Projects; Resources; *Visual Environment

ABSTRACT

Concern for the deteriorating visual environment of our cities has prompted the American Institute of Architects (AIA) to make a concerted effort in educating the public to understand the nature of environmental design. Professional environmental designers and educators alike must promote environmental education as one way of achieving a satisfactory visual environment. This resource guide and bibliography attempts to provide a spectrum of viewpoints and makes no attempt to be all inclusive. It is designed primarily for teachers to assist them in educating students about environmental problems and to develop environmental awareness. Part One is an annotated bibliography of AIA projects and programs together with state and community projects. In addition to a short resume, the organization's name and address are noted as well as the appropriate grade level in which it may be used. An annotated bibliography of materials constitutes Part Two. Items include informational sources, instructional materials, kits of classroom materials, student resource books, activity resource books, teacher resource books, periodicals, films, and filmstrips. A project index and instructional materials index conclude the work. (BL)

FILMED FROM BEST AVAILABLE COPY

ED 077679

**EXCERPT
from the
AIA
ENVIRONMENTAL
EDUCATION
GUIDEBOOK**

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

ED 077679

THE AMERICAN INSTITUTE OF ARCHITECTS
1785 Massachusetts Avenue, N.W.
Washington, D.C. 20036

FOREWORD

The environment is now on the public mind. Channels to information on environmental education are needed. This collection of sources will only function if we continue to have input for better resources. Both additional materials and criticisms of the ones included here are solicited. This guide to environmental education is considered as a working tool to be refined as more becomes known about this infant subject. The guide attempts to provide a spectrum of viewpoints to suit various tastes. It makes no attempt to be inclusive, being only a body of information contributed by various knowledgeable individuals and groups.

It is organized in two parts - one for the interested design professional and the other for his use with educators. While there are a variety of vehicles for public education, this one stresses education through primary and secondary levels.

James Pratt, Chairman

Committee on Public Education

March 1970

TABLE OF CONTENTS

- *Foreword
- *Table of Contents
- *Introduction
- *Credits

1. COMMUNICATING ENVIRONMENTAL EDUCATION: FOR DESIGN PROFESSIONALS

- . 1 WORKING WITH PRIMARY AND SECONDARY SCHOOLS:
HOW TO BEGIN
 - . 1 Self-Education
 - . 2 Opening Communication with Educators
 - . 3 Assisting in Establishment of Programs
 - . 4 Continuing Support of Programs
 - . 5 Possible Steps in Beginning
 - . 6 Beginning Teaching Aid Suggestions, Improvised.
 - . 7 Longer Projects
- . 2 Working with Other Institutions
- *. 3 Current Projects
 - . 1 AIA Chapter Projects and Programs
 - . 2 State and Community Projects

2. COMMUNICATING ENVIRONMENTAL EDUCATION: FOR EDUCATORS

- *. 1 Memorandum for Teachers
- . 2 Goals
- *. 3 Bibliography
 - . 1 Informational Sources
 - . 2 Instructional Materials
 - . 3 Kits of Classroom Materials
 - . 4 Books: Student Resources
 - . 5 Books: Activity Resources
 - . 6 Books: Teacher Resources
 - . 7 Periodicals
 - . 8 Films/Filmstrips
 - . 1 Of General Interest
 - . 2 By Grade Level
 - . 3 Sources

3. INDICES

- *. 1 Projects
- *. 2 Instructional Materials

* INCLUDED IN EXERPT

INTRODUCTION

Opinions of cynics notwithstanding, in a democracy the people dictate. They elect office holders, influence public officials and affect governmental activity. It follows that an educated public is a necessary ingredient of democracy. When people are ill-informed their actions could be injurious to the public welfare. A democracy has more to fear than the tyranny of power in the hands of those who govern. It has also to fear the tyranny of ignorance in the hands of the people.

The American Institute of Architects is concerned about the deteriorating visual environment of our cities. But its efforts have only scratched the surface, because there is a deep-seated lack of understanding of the nature of environmental design. Even people who are otherwise well-educated are the victims of this ignorance. From a practical standpoint this subject is difficult to teach to adults. It can be taught to children together with the other fundamentals of education and treated as a preparation for citizenship.

The professional environmental designer is far from the only determinant of the character of the visual environment. Public officials, public boards, corporation boards, managers, entrepreneurs and ordinary voters of budgets and bond issues and all men who build are decision-makers in the quality of architecture and the city - and they are rarely prepared to perform this function. Obviously, a critical amount of the force which shapes the environment is in the hands of the untrained - and sometimes the unsympathetic. Poorly designed buildings incompatibly related, heedless highway design and location, incongruous utility lines, chaotic sign design and placement, improper and uninformed zoning and short-sighted planning are all contributing elements to our man-made, visual environment. Our salvation is the enlightenment which comes with education. No single master can organize successfully all of these elements. It can be done only with the intelligent cooperation of all of the participants.

Satisfactory visual environment is not only a matter of esthetics. The design of an architectural space, a neighborhood, a highway or a city creates an atmosphere which has a critical influence upon the activity which takes place within it and upon the people who dwell there. One of the products of good visual environment is human dignity and pride. The chaos of ugliness can breed only resentment and despair.

A committee of the AIA has been working since 1966 to achieve environmental education in the public schools. This document is the second edition of a guide in response to many requests for help. It will be supplemented from time to time with additional material.

Arthur Rigolo, FAIA
1967-9 Chairman, Task Force
on Elementary and Secondary
Schools

CREDITS

For documentation of work being done by local professional groups over the United States, Elisabeth K. Thompson, Senior Editor, Architectural Record; for contributions to the text, Arthur Rigolo, Alan Levy, Richard Stein, and Derald West; for loan of her accumulated instructional materials and knowledge of ongoing projects, Ellen P. Berkeley, Senior Editor, Architectural Forum. For compilation of many instructional materials, Elisabeth K. Thompson and Joanne H. Pratt, Sources consulted for bibliographic inclusions include: Doreen Graham Librarian, University of Michigan; Myra Gulick, University of Michigan; Joseph T. A. Lee and William Morgan; Group for Environmental Education, Philadelphia; Elisabeth K. Thompson; Franziska P. Hosken's published bibliography; the MATCH book list for "The City"; Sarah B. Moore, educational consultant to Dallas Chapter, AIA; Masha Porte, Audio-Visual Librarian, Dallas Public Library. For material consolidation, Joanne H. Pratt; for coordination and typing Sara H. Neal and Sandra Hunnewell. David Connally contributed the graphics. For final editing and coordination, James Pratt; Gordon Phillips handled many details.

AIA PROJECTS AND PROGRAMS

AIA COPE

Elementary	Has been exploring potentials in a program it was asked to assist with - a project called "<u>Safety Village</u>" which the Little Rock Safety Commission will use in teaching traffic signs and signals. The scale of "Safety Village" is such that classes brought to the village can actively participate in it as drivers and pedestrians. The chapter wants to make of it a microcosm of good urban design - or perhaps of good and bad design, to point out the contrast. One possibility is to tie in "Safety Village" to a state-wide program of design education as an integral part of the educational system. Information: Edwin B. Cromwell, FAIA 416 Center Street Little Rock, Arkansas 72201	ARKANSAS CHAPTER
Teachers	Initiated by the art supervisor of the Baltimore city schools, consists of a series of 16 "<u>environmental workshops</u>" for all interested teachers in the school system. Aims to "create a greater awareness of the visual aspects of the environment on the part of teachers so that they can incorporate projects into the art program which will focus the student's attention on his environment." Four members of the Baltimore chapter, A.I.A., and two members of the city's Department of Education staff comprise the workshop committee.	BALTIMORE CHAPTER
4-6	A program in environmental awareness, prepared and taught by chapter members as a separate subject, using slides. Currently, a spot presentation program available throughout the year. Information: Bucks County Chapter, A.I.A. P. O. Box 223 Bristol, Pennsylvania 19007	BUCKS COUNTY CHAPTER (PENN.)
	The chapter, with the Connecticut State Arts Commission, has applied for a Title III grant of funds for developing a <u>curriculum in environmental awareness</u>. Includes a pilot program in two urban school districts (Middletown and Norwich) and two rural schools (Haddam and Preston) as a means of studying the different attitudes toward the environment. Proposes to combine "psychology of art" with "methodologies of planning and design" as its premise for developing awareness of the environment and a sense of participation in the environment. Envisions two phases: 1) in-school testing of specific curricular materials, modular kits, audio-visual aids, exhibitions for use in art, industrial arts and social	CONNECTICUT CHAPTER

studies curricula, and 2) out of school programs of field trips to building sites, redevelopment areas, architects' and planners' offices, and actual building of structures by pupils.

Elementary

Secondary

At the end of the first year the four-year development program is intended to have produced a curriculum plan for environmental studies at elementary and secondary levels, a teacher's guide to the construction of classroom models and other three dimensional demonstration arts (with a testing of resources for building materials); an annotated list of useful films, film strips, video tapes, etc.; a set of 300 mounted captioned photographs (8-1/2 x 11) showing key architectural and environmental examples in the state. A list of architects and planners "capable of working effectively in Connecticut schools and available on a regular basis" is also to be provided. Information:

Landis Gores, AIA
Cross Ridge Road
New Canaan, Conn. 06840

Anthony Keller
Conn. Com. on the Arts
340 Capitol Avenue
Hartford, Conn. 06106

1-9

An hour-long program including a question-and-answer period, which has been taught by chapter members with some teacher participation in public schools. Materials include slides and a prepared text assembled with cooperation of the school district and the Mayor's Committee of Civic Leaders. The program is available throughout the school year and is used occasionally. Cost of the program's preparation was less than \$200, principally for reproduction of materials. Information:

John M. Olson, AIA
3216 Reid Drive
Corpus Christi, Texas 78404

CORPUS
CHRISTI
CHAPTER

Initiated ad hoc in 1968, this project - an experiment in stimulating teacher interest in adding the environmental viewpoint to their course materials was officially adopted by the chapter in 1969.

DALLAS
CHAPTER

K to
Graduate
Students

A former teacher is engaged to assist chapter members in "data input activities" and is working with the architects, a psychiatrist, landscape architect, a physical chemist and other environmental professionals. Is being developed in a Dallas private college preparatory school. Material is focused

partially on the city of Dallas to illustrate principles. Field trips, guided by architects, were an important beginning part of the program. Teachers attended orientation meetings with architects, then applied what they had learned in their classes. The project is funded for three years at \$2000 per year.

In 1970 will begin work on behalf of the Institute to develop and test a teacher training curricula for workshops through a grant to the COPE. Is involved in an experimental workshop with graduate university students to provide experience for teacher workshop curricula. Project experiences are written up and available. Information:

Dallas Chapter AIA
241 The Quadrangle
2800 Routh Street
Dallas, Texas 75201

Junior
High

Chapter has provided copies of the Philadelphia chapter's workbook, Our Man-Made Environment, in four junior high schools in the city. It hopes this is the "seed planting" for a much more extensive program in Houston. Information:

Hugh E. Gragg
2727 Kirby Drive
Houston, Texas 77006

HOUSTON
CHAPTER

Teachers

An elementary school teacher training program is in process of development. Its form will be determined through contact with faculty of the School of Education, Rutgers University with chapter members as advisers. The intention is to begin with a 2-3 week summer course for teachers. It is hoped this will result in inclusion of subject material in the regular curriculum in several primary schools on a pilot basis. Tentative budget - \$3500/year. Information:

Arthur Rigolo, FAIA
Grove Street at U. S. Route 46
Clifton, New Jersey 07013

NEW JERSEY
SOCIETY OF
ARCHITECTS,
REGION OF
AIA, EAST
ORANGE, N.J.

Junior
College

A two-week course on architectural appreciation given at the local junior college. On a budget of less than \$25, was prepared and taught by chapter members, using slides and a field trip to acquaint students with actual examples of architecture. Information:

Beryl Durham, AIA
514 N. Canal
Carlsbad, N. M. 88220

Samuel W. Pool, AIA
P. O. Box 1574
Roswell, N. M. 88201

NEW MEXICO
SOUTHERN
CHAPTER

K-6

Lesson plans in environmental awareness, to be used as enrichment of existing (and projected) social studies curricula, have been devised, and their development is now in the final stage, by members of the chapter and the Supervisor of Art Education of a nearby school district. These plans, directed toward the teacher, are inclusive in teaching content, and activities, and are presented for teacher use in an unusual format to encourage and facilitate their use by the teacher.

NORTHERN
CALIFORNIA
CHAPTER

The method was devised to permit children to make judgments based on experiences and information during use of the materials. The project was initiated by the chapter, and is supported by some funds from the chapter and by a grant of \$8000 from the Institute to provide for educational consultation. Information:

Mrs. Marie Farrell, Exec. Sec'y
Northern California Chapter, AIA
254 Sutter Street
San Francisco, California 94108

1-2

A pilot project for two elementary schools in the South Pasadena School District, will begin in Spring 1970 with an architectural focus in environmental awareness. The program has three phases, but centers on a tour of buildings in the area. Classroom presentations (approximately 20 minutes) of slides, movies, and discussion of tour subject with an AIA member precede each tour, and a post-tour classroom discussion with an AIA member is held to recall and recapitulate the tour and its meaning to the students. A prize is given for the best "recall" of the tour. Information:

PASADENA
CHAPTER

Ivor Ash, AIA, Chairman
Environmental Awareness Action
Pasadena Chapter, AIA
The Gamble House
4 Westmoreland Place
Pasadena, California 91103

K-12

The outgrowth of cooperation between architects and teachers. AIA members regularly scheduled presentations at city schools and this led to an invitation in 1966 to assist in preparation of a syllabus for secondary art teachers aimed particularly at including material on environmental design. Architect members of the ad hoc committee offered, instead, to develop a separate, unified program on the man-made environment, and to share in the cost of

PHILADELPHIA
CHAPTER

See GEE under
Instructional
Materials

development. The chapter provided \$7500, the city art division a like amount; \$2000 came from the Heinz Foundation and a Brunner award of \$6000 brought the funds for the project to \$23,000. At a later stage the Institute contributed \$25,000 to develop the now complete Book Sever workbook. Information:

Group for Environmental Education, Inc.
1133 Quarry Street
Philadelphia, Pennsylvania 19107

A Camp Fire Girls program, "Search for a Pot of Gold - The World Is Wonderful if You Really Look," initiated by a chapter member, is a project aimed at developing observation of, understanding of and a sense of responsibility for quality of environment. The "treasure hunt" is directed specifically toward the city of Portland but could easily be adapted for other localities. The hunt requires the making of a map of an area after participants have walked through it, searching out aspects (size, shape, pattern, density, views, obstructions, hills, natural growth, man-made development) and such elements as paths, landmarks, nodes, "edges." The participant must also find places in the city for various purposes and functions (a "place to feel the pulse of the city, to meet, relax, to watch and savor people passing by"); historic buildings; circulation and transportation (each girl must take a bus trip through Portland that requires at least two transfers, guaranteeing a wide scope of urban experience). Culminates in "leaving a treasure for the future": a plan for the area selected by each girl for her special study in which she looks to the future of that area and suggests improvements for it. Information:

Mrs. Marjorie Wintermute, AIA
1000 Winter Lane
Portland, Oregon

PORTLAND
CHAPTER

3-8

Chapter members show in the San Diego schools the AIA film "No Time for Ugliness." Initially the program had no particular form, but it is being developed and expanded from one two-hour session to two hours per week for three successive weeks. Initiated because of school district interest. Info:

Mrs. Peg. Menoher, Exec. Sec'y
San Diego Chapter, AIA
Studio 5, House of Hospitality
Balboa Park
San Diego, California 92101

SAN DIEGO
CHAPTER

4-6	A chapter committee, working with two teachers and local television station KCTS-TV, aided in development of environmental material for a series of telecasts on "Man and His Environment," geared to the capabilities and interests of children in grades 4, 5, and 6, and intended to give young viewers a "broad understanding of both natural and man-made environment as well as some study of problems such as urban blight, population, water and air pollution." The series tries to provide a "fundamental grasp of environmental problems, show how these problems can be solved, and indicate the motivation to work toward their solution." The method attempts to develop the student's capacities for critical thinking and problem solving rather than to indoctrinate him, raising questions, not providing answers. The program is telecast statewide. An AIA monitor reports early programs were very good, and teachers have indicated strong interest.	SEATTLE CHAPTER
All Grades	The chapter, with its Women's Architectural League, sponsors a Student Awards Program in connection with the television series (for the appropriate grades) but includes also other elementary grades, junior high and high school students. Awards are offered for the best written entries on "The Physical Environment Around Us." Information: Miss Pat Hunt Seattle Chapter, AIA KCTS-TV 311-1/2 Occidental Ave. S. Seattle, Washington Seattle, Wash., 98104	
3rd Grade	"Architectural Conversations," each 40 minutes in length, were devised several years ago by the chapter (under direction of Gordon Johnston, AIA, now mayor of Tacoma) for presentation in the Tacoma schools. Chapter members conducted the "conversations" as part of the regular social studies curriculum. A television film was made of the "conversation" and is shown on occasion on local television stations and over closed circuit to all third grade classes. During the conversation, the architect draws up a list, with the class, of all the buildings they use in the course of a week. Then discusses the characteristics of these buildings, principles which control shapes and characteristics of buildings and explains that beauty, order and function are the result of thoughtful study and planning. Models and graphics are used. Students participate in the question period. Sparked by the chapter which approached the superintendent of schools with the assurance that the chapter was not asking	SOUTHWEST WASHINGTON CHAPTER

for a new subject in the curriculum, but offering a special aid in the existing program. Information:

James Widrig, AIA
1041 Dock Street
Tacoma, Washington

High
School /
Jr. Col-
lege

A semi-annual seminar in sensitivity to arts and the environment is presented at high schools and junior colleges in the chapter area. Prepared by a chapter committee, with instructors at the colleges, the program includes slides, music, dance, and seminar groups, and is combined with existing curricula. Cost has been less than \$1000. Info:

Robert W. Crozier, AIA
Robert W. Crozier & Associates
41 Elm Place
Rye, New York 10580

WESTCHESTER
CHAPTER

Elemen-
tary /
Univer-
sity

Education Committee activities include:

- (1) Milwaukee School of Engineering - Evaluation and expansion of present architectural curriculum.
- (2) Milwaukee Public Elementary Schools - The committee is meeting with educators to introduce a simple program at primary level.
- (3) Metropolitan Milwaukee High Schools - Introduction of curriculums similar to that of the Milwaukee Public Schools into all the area high schools.

Information:

Leonard A. Widen, AIA
Grassold, Johnson, Wagner and Isley
525 East Wells Street
Milwaukee, Wisconsin 53202

SOUTHEAST
SECTION
WISCONSIN
CHAPTER

PROJECTS BY INDIVIDUAL AIA MEMBERS

A I A C O P E

Donald Gibbs, AIA, proposed to the District Curriculum Supervisor in Long Beach, California, a review of existing textbooks used by the District to determine what, if any, material they contain on architecture and the visual environment. A cursory survey revealed little. The District appointed, at Mr. Gibbs' suggestion, a committee to conduct a thorough review. Other professionals (landscape architects, planners) have been added to the committee, also at Mr. Gibbs' suggestion. Information:

REVIEW OF
TEXTBOOKS

Donald Gibbs, AIA
3575 Long Beach Blvd.
Long Beach, Calif. 90807

Marjorie Wintermute, AIA, of Portland, Oregon, initiated a program in environmental awareness, wrote its program, and promoted and instructed in its use throughout the city. The program has been in use during 1969-70. Information:

CAMP FIRE
GIRLS
PROGRAM

For full details, see
Portland Chapter

High
School

Concept: Supplementary program to introduce the design process to industrial arts students. The architect served as resource person and visiting lecturer. Part of his success he attributed to the break in school routine.
Materials: Mimeographed design problems, for example, "Re-design of Commercial Center of Lake Geneva, Wisconsin", and "Undersea Research Center."

VISITING
LECTURER,
LAKE GENEVA,
WISCONSIN

Use: Has been used for eight years in class of 20 students at the Badger High School.
Information:

D. M. West, AIA
West and Seron
Lake Geneva, Wisc. 53147

AIA STATE COUNCIL PROJECTS

AIA COPE

The Council's Special Committee on Problems of the Environment (SCOPE), using Council funds allocated for the purpose, commissioned a professional photographer to make color photographs of man-made ugliness and natural beauty, then put the slides together as a show, complete with script, called "Three Faces of California." The third face is the challenge to the viewer; what will he make of his state? The 15-minute show effectively points out the citizen's responsibility for the good — or bad — quality of his future environment. An architect reads the script (written by a committee member) as the slides are shown.

CALIFORNIA
COUNCIL
AIA

SLIDE PRE-
SENTATION

Although these slides were made professionally, and involved travel statewide, and the project was therefore not inexpensive, a similar show, prepared with the perceptive eyes and photographic capabilities of chapter members, and directed at local sights, scenes and conditions, could be prepared at less expense and to effective purpose. Information:

California Council, AIA
1736 Stockton Street
San Francisco, California 94133

All chapters in Washington State are participating in the preparation of film strips on a variety of architectural subjects, reviewing hundreds of slides to select those most appropriate. Among subjects in the series of strips: sculptures, fountains, bridges and highways, public buildings, street furniture, signs, city textures, "things in motion." The film strips are being prepared with and for the State Department of Education.

WASHINGTON
STATE
COUNCIL
AIA

FILM STRIPS

Council committees are also preparing a "Guide to Teachers" series of brochures, scheduled for publication in the Spring of 1970, to be used to inform teachers on various types of buildings and on more important environmental issues (circulation and transportation, communications, industrial parks, water resources -- rivers and banks, parks and recreation, relation between leisure and art) prior to their taking students on field trips. Information:

Washington State Council of Architects
10 Harrison Street
Seattle, Washington 98109

GUIDE TO
TEACHERS
FOR FIELD
TRIPS

OCCASIONAL PROGRAMS
PRESENTED IN SCHOOLS BY CHAPTERS

AIA COPE

	Many chapters show films such as "No Time for Ugliness" at schools but have no regularly scheduled presentations. Arrangements are usually worked out by a chapter committee with school officials, but in some instances, teachers or principals of individual schools, or district officials, request presentations on architecture. Although most such requests are for "career day" speakers, cooperation on such requests can be turned to invitations to speak on architecture as an element in man's environment, and on the factors that make up the environment.	SPEAKING AND FILM SHOWING
1-12	A special slide show, "Valley Beautiful or Valley Ugly," prepared by the chapter, has been shown by chapter members to most schools in the Phoenix area. Although not a formal, continuing program, the slide show, and "No Time for Ugliness," have been well received. Planning another slide show, but will discuss design content directly with educators this time. Cost of film and equipment for showing slides was approximately \$1000. Info: Phil Stitt 2720 North 16th Street Phoenix, Arizona 85006	CENTRAL ARIZONA CHAPTER SLIDE SHOWS
	Some chapters (Toledo, Orange County, Northern California) sponsor architectural competitions in high schools, primarily as a means of encouraging students to consider a career in architecture. A secondary benefit, however, is a more general interest in architecture by other students.	COMPETI- TIONS
1-12	Has provided the school system with a kit of slides of historic buildings in the city. The text supplied with the slides is so structured that it can be adapted by teachers for use at any age level. Information: Mrs. Jean Schneeberger Executive Secretary, AIA 107 N. Seventh Street St. Louis, Missouri 63101	ST. LOUIS CHAPTER THE COM- MUNITY HERITAGE SLIDES OF HISTORIC BUILDINGS

STATE AND COMMUNITY PROJECTS

A I A COPE

All
Grades

Education Programming of Cultural Heritage is a unique program (and installation) in Berkeley, California, available to students of schools in the area and to other groups interested in the program. A visual presentation of man's historical and cultural development, dramatizing each stage and phase by simultaneous projection in a circular room of 12 contiguous images, each 20 square feet in size. Installation permits presentation of architectural subjects so that the viewer finds himself inside a building (usually one of historic as well as architectural significance). Also permits simultaneous presentation of all steps in development of an architect's drawings for a building. Any combination of ancient and modern building pictures can also be made with some modification of installation. The EPOCH program has been incorporated in a number of schools in Alameda County, California. Info:

EPOCH
BERKELEY,
CALIFORNIA

Dorothy A. Bennett
1033 Heinz Avenue
Berkeley, California 94710

4-6

The city - ancient and contemporary - is studied by a class in urban design at this city-operated center in Barnsdall Park (where Frank Lloyd Wright's house for Aline Barnsdall, and the museum he designed in 1956, are located). In the eight-week course - entitled "Fantastic City" - students - aged 9 to 11 years - study "the development and history of cities and the direction in which cities seem to be going." A broad range of environments - from primitive huts to medieval cities to outer space - is presented. After studying each type, students make models of cities (to scale or close to it) of that type. Information:

JUNIOR ART
CENTER
LOS ANGELES

Seymour Rosen
Junior Art Center
Barnsdall Park
Los Angeles, California

All
Grades

The Northwest Art Project exposes school children to original works of art. The League has assembled an impressive collection of contemporary Pacific Northwest art - 21 works, selected by a jury and paid for by the League, which trains its members to lead class discussions. The project is ten years old, and includes lectures, films, discussion groups and studio sessions. Artists included in the project are Mark Tobey, George Tsutakawa, Glen Alps, Manus Graves, and Ken Callahan. Their work sparks reactions in the children from "what is it" to

NORTHWEST
ART PROJECT
SEATTLE
JR. LEAGUE

Art Sensitivity
Project

1.3.2.1

analyses of what the artist is trying to say.
Information:

Junior League of Seattle, Inc.
1616 41st Avenue East
Seattle, Washington

5

A demonstration program in the fifth grades of the Little Rock school system which was "designed to awaken an understanding of the nature of art." The Arkansas Chapter, A.I.A., lent its support to the program and has offered to assist the League in expanding the program into other grades and other areas of esthetic understanding. Information:

Little Rock Junior League
Little Rock, Arkansas

Chapters should inquire if Junior Leagues in other cities may be willing to undertake programs of comparable scope and aim.

ART AWARE-
NESS, JR.
LEAGUE OF
LITTLE ROCK,
ARKANSAS

Art Sensitivity
Project

Teacher
Training

Pilot project was established by a federal grant under Title III to service the North Central Ozark Mountain Range area (Harrison School District No. 1). Emphasizes "visual thinking, visual perception, sensitivity, and receptiveness to quality." Consists of teacher training through workshops and seminars for credit; the areas of music and art are also included. Information:

Dr. Clarence Williams
Harrison Art Center
Harrison, Arkansas

REGIONAL
ARTS AND
CRAFTS CEN-
TER, HARRISON,
ARKANSAS

Art Sensitivity
Project

K-6

A program for pre-school and elementary school children intended to "develop the artistic sensibilities of the child . . . and to build a vocabulary with which he can communicate with the artist/designer/architect/craftsman; this is basically a program of teaching children how to see - not only in art, but in the world around them."

Premise for the course is that "the same pleasure-giving elements which we appreciate in a work of art are available to a person in the world around him simply by looking out of a window - if he can see." The program includes projects for "sensitizing the child" - that is getting him to use, and so to develop, his senses.

The projects (sometimes as games) involve texture, form, color, using examples from the immediate vicinity. Also part of this gallery's activities is the training of "Picture Ladies" who

CREATIVE
ARTS CENTER
WM. HEMP-
HILL GALLERY
OF ART, KAN-
SAS CITY, MO.

Art Sensitivity
Project

visit schools in Kansas City and discuss works of art not as art history but as "looking at art."

The coordinator of Extension Classes, Mrs. Dean W. Graves, is the wife of a Kansas City architect, whose firm, Urban Architects, is underwriting the cost of materials for an experimental program now under way which involves architecture directly.

Information:

Mrs. Dean W. Graves
William Hemphill Nelson Gallery of Art
Kansas City, Missouri 64111

TV
Public

This public education program, being developed under a grant from HUD, is designed to impress on the public an awareness of the relationship of urban environment with open space, urban beautification, and preservation of historically significant buildings and places.

WGBH-TV
BOSTON
CURRICULUM
DEVELOPMENT

Television
and Radio

HUD support is matched by a consortium of five national foundations: Ford, Alfred P. Sloan, Old Dominion, American Conservation, 21-Inch Classroom.

WGBH is to develop an instructional TV curriculum with TV films for use in classrooms - a couple in time for the '70-'71 year. Information and curriculum aids for teachers will be included.

Information:

Robert Larsen, Director
Education Division WGBH-TV
125 Western Avenue
Boston, Massachusetts 02135

TV
High
School
and Up

A series of ten films on the environment, made in cooperation with the Philadelphia Chapter, A.I.A., funded by the Department of Education of the Commonwealth of Pennsylvania, will be presented to create an understanding of the effects of the man-made environment on everyday life. The films are directed to high school and general television audiences, and they deal with a general statement of problems of the city; choices and changes in environment; slums; three principles for a good building (strength, function and beauty); transportation; the architect in the role of community designer. Info:

WHYY-TV
PHILADELPHIA

Television
and Radio

Ed Fryers
Channel 12, Station WHYY-TV
4548 Market Street
Philadelphia, Pennsylvania 19139

TV
4-6

(For a description of this project series, see
Seattle Chapter.)

KCTS-TV
SEATTLE

K

Concept and Emphasis: "to foster sensitivity to
the child in his response to the everyday environ-
ment". A demonstration urban play group. The
major aim would be to "decrease the alienation
between the child (and future adult) and his en-
vironment both in the sensory enjoyment of his
city and the ability to use it in his personal plans.

URBAN DIS-
COVERY DAY
CARE CENTER
DETROIT,
MICHIGAN

A I A COPE

MEMORANDUM FOR TEACHERS

Concerning a Program of Environmental Awareness

Decisions made in the 70's will determine whether we will destroy or save our natural environment for ourselves and future generations. We are involved in a similar life/death struggle to maintain quality in our man-made environment. In both cases we are reaping a harvest of devastation that will not support life. The pollution of water supplies and the general destruction of ecological balance matches the deterioration of urban areas with resulting social ills.

The American Institute of Architect would like to join teachers in their effort to educate for future eradication of these problems; create a continuing dialogue between the teaching and design professions (architects, landscape architects, civil engineers, urban designers, urban and regional planners and urban ecologists) so that each can benefit from the perspective, knowledge and training of the other; to suggest a set of specific goals in teaching environmental awareness; to help implement activities in such form as will be most effective in accomplishing these goals.

This working tool is far from inclusive. It is only a channel to some known information. Additions, criticisms and suggestions are solicited for its improvement. Further work for an expanded bibliography may subject-relate the entries. To date there has been hesitation to direct entries too specifically to particular academic subjects, on the theory that creative teachers would have better insights into materials use than any others.

INFORMATIONAL SOURCES

For information on research in specific fields of education, offers a decentralized network of information on research documentation centers, coordinated in the Office of Education. This network acquires, abstracts, indexes, stores and disseminates nationally significant research documents. It is aimed at serving a wide and varied audience. Information:

ERIC Document Reproduction Service
Bell & Howell Company
1700 Shaw Avenue
Cleveland, Ohio 44112

ERIC:
EDUCATIONAL
RESEARCH
INFORMATION
CENTER

Is a national organization of the various disciplines in science, concerned with environmental problems. Local groups (usually in university areas) study from the scientific aspect: population, pollution, solid waste management, land use and education. Information:

Walter Bogan, Executive Director
Scientists Institute for Public Education
30 East 68th Street
New York, New York 10021

SIPI:
SCIENTISTS
INSTITUTE
FOR
PUBLIC
INFORMATION

The objects of the Institute are "to advance the science and art of planning and building by advancing the standards of architectural education, training, and practice; to coordinate the building industry and the profession of architecture to insure the advancement of the living standards of our people through their improved environment; and to make the profession of ever-increasing service to society." Information:

Committee on Public Education, COPE
The American Institute of Architects
The Octagon
1735 New York Avenue, N. W.
Washington, D. C. 20006

AIA:
AMERICAN
INSTITUTE
OF
ARCHITECTS

Plans to develop a "computerized indexing and retrieval system for the knowledge, findings and tests that relate to the arts. This system will provide a tool for curriculum development and research..." Information:

Public Information Officer
CEMREL
10646 St. Charles Rk. Rd.
St. Ann, Mo. 62074

CEMREL:
CENTRAL
MIDWESTERN
REGIONAL
EDUCATIONAL
LABORATORY

BIBLIOGRAPHY OF INSTRUCTIONAL MATERIALS

The materials listed range from fragmentary accounts of intentionally unstructured "non-classes" to published course unit manuals and supply kits available. The current status of many of these projects changes as a course moves from the conceptual, to the trial, to the published stage. The address listed below is in each case the source from which we obtained sample materials. Hopefully, it will lead you to the current source and availability of the reference in which you are interested. Materials are listed in sequence of earliest grade level recommended for use.

An article in the Architectural Forum, June 1969, by Ellen Perry Berkely reviews in fuller detail many of the items summarized herein.

K-12

CONCEPT AND EMPHASIS

Directed toward a basic understanding of the man-made environment as a response to the needs of man. Building upon awareness, it investigates the purpose, form and dimension of our built surroundings, encourages confidence in making judgements and determining needs and wants, and introduces the complexities of choice-making in an atmosphere of expanded alternatives.

GROUP FOR
ENVIRON-
MENTAL
EDUCATION,
INC.
PHILADEL-
PHIA, PA.

Is being developed for the full K-12 school experience but first efforts have concentrated in the middle years. There has been no conscious effort to limit the grade level or choose which subject it relates to. The test programs vary in every direction, in age level, basic subject and in scheduling. The goal of the program is to enhance this flexibility while providing greater support for the teacher in choosing his or her own direction.

The key lies in a creative classroom experience and this is emphasized through teacher training workshops and literature. Classroom materials are viewed as supportive, introductory and motivational. They are not self-sufficient texts.

MATERIALS

Materials completed for the 1969-70 school year include a students' workbook entitled "Our Man Made Environment: Book Seven", a teachers' guide, a bibliography, a collection of teachers' experiences in the area of environmental education and suggested classroom activities.

Scheduled for completion for the 1970-71 school year is a workbook in determining needs, working with limitations and resources and making choices, a series of work pamphlets in graphic communications skills; more teacher supportive materials in curriculum suggestions and classroom kits for use in planning problems.

All of the material described above is directed at the middle four years, primarily 5, 6, 7 and 8. Material for earlier grades and high school programs is now in the planning stage.

A I A C O P E F O R E D U C A T O R S

USE

Materials were first tested in 1968 in the Philadelphia schools. Revised materials and program concepts are being used in a more extensive test in a number of schools in the 1969-70 school year. Philadelphia, Columbus, Ohio; Newark, Delaware: seven districts in New Jersey, Houston, and some smaller public and private schools are working with completed materials. The grade levels vary between 4th and 9th. The number of students now exceeds 12,000.

The teachers using the materials are primarily social studies or art teachers although English teachers, math teachers and science teachers are involved in a number of districts. Other materials are now being tested in a limited way in Philadelphia classrooms. Program ideas are being tried in high school classes in urban studies and in some elementary school classes.

ORIGIN

The program began through the joint efforts of the Philadelphia Chapter of the A. I. A. and the Philadelphia school district. It received additional funding through the Brunner Scholarship and The Heinz Foundation.

To further these original efforts a non-profit group--the Group for Environmental Education, was established. The National A. I. A. and the Fels Foundation have financially supported these continuing efforts.

Distribution of ideas and materials have benefited from the individual efforts of some local A. I. A. chapters as well as state departments of education, and local school districts eager to become involved. Limited copies of published materials are available on a complimentary basis to educational institutions or similarly interested groups. Information:

The Group for Environmental Education
1214 Arch Street
Philadelphia, Pa. 19107

K-12

CONCEPT AND EMPHASIS

"To make the arts an integral part of the general education of all children in the school system". The Aesthetic Education Program was founded upon the premise that "the sensibilities and capacities for judgments and effective action can be trained within the school". The materials being prepared as part of this ambitious program should be extremely valuable to anyone working in the field of environmental education.

CEMREL
(CENTRAL
MIDWESTERN
REGIONAL
EDUCATION
LABORATORY)

UNIVERSITY
CITY
MISSOURI

MATERIALS

Guidelines for Curriculum Development for Aesthetic Education which includes a handbook, a Thesaurus (of possible activities that might be included for aesthetic education), a curriculum developer's workbook, a set of concept cards, a set of activity cards, and models of learning packages. Arts packages written by the combined efforts of teachers and staff in summer workshop sessions.

A "portable sensory environment", the Space Place, a tent-like structure containing a number of nested square modules with interchangeable panels of various textures, which travels between schools as part of the "package" "Awareness of the Visual and Tactile World".

A media lab at the district's senior high school designed to be used by teachers and students to develop their own visual presentations. Incorporates a complete photographic section, audio laboratory, slide and filmstrip library.

CEMREL Newsletter

Computerized information storage and retrieval system (See INFORMATION SOURCES)

USE

Field testing of experimental materials is under way in the University City (Mo.) schools.

A I A C O P E F O R E D U C A T O R S

ORIGIN

Developed from a conference held at the Whitney Museum, New York City in January 1967 held under the auspices of the U. S. Office of Education. Subsequently funded by CEMREL, Ohio State University the U. S. O. E. and the J. D. Rockefeller 3rd Fund. Information:

Public Information Officer
CEMREL
10646 St. Charles Rk. Rd.
St. Ann, Mo. 63074

A I A C O P E F O R E D U C A T O R S

CONCEPT AND EMPHASIS

Outstanding social studies course which aims to help the student discover the relationship between experience or events and ideas so that the discovery becomes a part of a continuing life experience. Series draws on the disciplines of economics, political science, anthropology, geography, architecture, city planning, and some history.

OUR WORK-
ING WORLD
SOCIAL
STUDIES
SERIES

MATERIALS

- 1 Families at Work aims at bridging the child's experience and his ideas; emphasis is on the concept of self and his role in relation to the members of his family and of others in the world.
- 2 Neighbors at Work introduces the varieties of neighborhoods and leads the student to an understanding of the individual as an agent of change.
- 3 Cities at Work involves the children in cities growth, development and problems. It leads them to feel that they are participating in discovering the causes of the cities' problems. Resource material includes perceptive essays on Frank Lloyd Wright, Neutra, Le Corbusier, Mies van der Rohe, Gropius and Niemeyer.

Each grade level includes a student text, workbook, records and filmstrips. The teacher's resource book is particularly good.

USE

Published in 1966, the series has been used extensively. The Dallas Chapter, AIA, has found that the series, already partially emphasizing environmental awareness, lends itself very readily to slide shows, field trips and other supplementary activities.

ORIGIN

Authored by Lawrence Senesh, Professor of Economic Education, Purdue University, Lafayette, Indiana.

Information and publisher:

Science Research Associates, Inc.
259 East Erie Street
Chicago, Illinois 60611

A I A C O P E F O R E D U C A T O R S

Elementary

CONCEPT AND EMPHASIS

A strategy for making art and environmental education encompass the same concepts that a child gets in a subject such as history. A very comprehensive approach gathering material which will be published in a doctoral thesis in the New York University School of Education. Information:

Amalia Pearlman
43 Maple Avenue, Ext.
Bethel, Connecticut

PEARLMAN
PHD THESIS

CONCEPT AND EMPHASIS

"curriculum activities and instructional materials to facilitate the artistic learning of children in the primary grades". The curriculum involves recognition of such elements as light, color, and texture through study of art masterpieces.

KETTERING
PROJECT
STANFORD
UNIVERSITY
PALO ALTO
CALIFORNIA

Elementary

MATERIALS

Resource box containing large and small reproductions of art works, tapes, slides, overlays.

USE

Used experimentally, with success, in several classes of various socio-economic groups.

ORIGIN

Financed by a \$70,000 grant from the Charles F. Kettering Foundation to Professor Elliott Eisner. Information:

Professor Elliott Eisner
Department of Art
Stanford University
Stanford, California

A I A COPE FOR EDUCATORS

Elementary -
Jr.
High

CONCEPT AND EMPHASIS

Materials developed specifically for use in Madison and the state of Wisconsin are geared toward informing students of the background, development and programs which give their community its particular character and cultural aspect. Environmental science, history, cultural arts, vocational counseling, geography and government are emphasized.

LOCAL
MATERIALS
OUR
COMMUNITY
MADISON
WISCONSIN

MATERIALS

Filmstrips and guides pertinent to the region such as:

Indian Legends of Lake Mendota	\$19.75
Use of Our Land and Water	11.95
Ho-Nee-Um Trail in the Fall	6.95

USE

In Madison public and parochial schools and, in part, throughout the state.

ORIGIN

Development financed through Title III federal and local funds. Information:

Visual Education Consultants
P. O. Box 52
Madison, Wisconsin 53701

A I A C O P E F O R E D U C A T O R S

Elementary and up

CONCEPT AND EMPHASIS

Designed as curriculum enrichment with the purpose of training and developing visual perception. Phenomena of color, light, shape, space, movement, distortion and abstraction and concepts such as order and disorder and composition.

The unit on MOVEMENT, for example, involves the student in looking at painting and sculpture. Varied follow-up activities include building a mobile, multiple printing and drawing multiple images of objects to indicate motion.

MATERIALS

16 mm films now available: The Art of Seeing (introductory) Figures
Discovery in a Landscape (about color)
Journey into a Painting (about color)
Movement
Shape
Light
Abstraction
Films are 10-22 minutes in length and cost about \$10/minute.

"pedagogical first-aid kit" to encourage student use of information presented in the films--lesson plans with model exercises, projects, games, puzzles and reproductions.

ORIGIN

Ford Foundation grant of \$511,500 to the American Federation of Arts. Information:

The American Federation of Arts

41 East 65th Street

New York, New York 10021

Films distributed for preview through

ACI Productions, Inc.

16 West 46th St.

New York, N. Y. 10036

CURRICULUM IN
VISUAL
EDUCATION
AMERICAN
FEDERATION OF
ARTS

A I A C O P E F O R E D U C A T O R S

Elementary
Jr.
High
University

CONCEPT AND EMPHASIS

"to nurture the discipline and productiveness of in-depth research" applied to world-wide city problems of the future.

three different classes -- university, junior high and elementary, worked in coordination on the same problem - the City of the Future.

Classes were non-structured and oriented to problem-solving on a global basis. These courses were inspired by R. Buckminster Fuller.

MATERIALS

The authors' work sheets and course diary.

USE

Taught during spring 1969 at Columbus Elementary School (for high potential students), Willard Junior High School, and the University of California at Berkeley. Not presently being taught.

ORIGIN

Developed and taught by Jon Dieges and Edwin Schlossberg. Information:

Design of Alternate Futures
c/o University of California
2700 Bancroft Way
Berkeley, California 94704
Mr. Jon Dieges
336 So. Pueblo
Ojai, California 93023

CONCEPT AND EMPHASIS

To see whether children can be taught to think visually. Verbal games, sensory-motor games and other exercises are all directed at increasing the child's facility to visualize.

MATERIALS

Unpublished outline of exercises.

USE

At the experimental school of the University of Illinois' Curriculum Lab. Information:

Charles W. Rusch
Department of Architecture
University of California at
Los Angeles
Los Angeles, California

DESIGNS
FOR THE
FUTURE
BERKELEY
CALIFORNIA

A BEGIN-
NING COM-
PENDIUM OF
SPATIALLY
ORIENTED
EXERCISES
FOR THE
CHILD
URBANA,
ILLINOIS

A I A C O P E F O R E D U C A T O R S

CONCEPT AND EMPHASIS

"to foster an appreciative and critical awareness of the environment, particularly an awareness of the intersections of natural and social processes as illustrated in Natural Park Service areas, and to increase in children the will and capacity to improve the environment".

NEED
(NATIONAL
ENVIRON-
MENTAL
EDUCATION
DEVELOP-
MENT)

Graphically integrated, stimulating materials drawing from communications, social studies, the arts, mathematics and science. Emphasizes poetry and prose more than most units do. One week of program is designed to be spent in a National Park or other natural setting.

MATERIALS

Program not yet published. Test materials have included a teacher's guide, student looseleaf or spiral classroom materials and a student "Environmental School Log Book".

USE

- 3-4 Appreciation of the environment. Pilot testing underway in twelve schools.
- 5-6 Aesthetic and physical relationships apparent in the environment. 11,000 students have participated in testing over a two year period. For example, Southwest Regional teacher training and student sessions currently being held in Platt National Park. Ready for publication.
- 7-8 Conservation and the effect man has had on land, air, and water. Under pilot testing in twelve schools.
- 11-12 The necessity and effects of environmental management.

ORIGIN

The program is being developed under Dr. Mario Menesini, Director of the Educational Consulting Service at the U. of C. Park Service's interpretive program. The National Education Association is reviewing and evaluating the NEED materials. Information:

NEED

National Park Service
U. S. Department of the Interior
Washington, D. C. 20240

4-5
7-8

CONCEPT AND EMPHASIS

Detailed social studies curriculum written with the assumption that people can learn to understand their environment and to change it.

Uses history, government, politics, planning, and draws on art, literature, poetry and music in interesting and imaginative ways.

URBAN
ACTION:
PLANNING
FOR CHANGE

NEW YORK
CITY

MATERIALS

Kit of multi-media materials (including nine filmstrips in color; six records, some with narration for filmstrips, some with folk music; 31 sets of Planning Information cards describing various cities and their development; a Teachers' Manual, a Course Planning Guide to help teachers coordinate the urban action program with their total curriculum; and thirty folksong sheets). Also included is a Community Planning Handbook, student workbook with maps, diagrams, games, exercises and interview forms.

USE

Used in two seventh grade classes in Harlem, in nine New York City eighth grade classrooms. Now adapted for fourth and fifth grades.

ORIGIN

Developed and field tested by architect C. Richard Hatch as an outgrowth of ARCH (Architects Renewal Committee in Harlem).

Information:
C. Richard Hatch Associates
989 Eighth Avenue
New York, New York 10019

Publisher
Ginn & Company
Boston, Mass. 02117

A I A C O P E F O R E D U C A T O R S

Upper
Elementary

CONCEPT AND EMPHASIS

TEXTBOOK

CHAMPAIGN
ILLINOIS

"Where I Live is Important to Me -- the visual aspects of building better communities" is the title of this primer in environmental awareness which helps "provide children with an awareness of the opportunities, choices and consequences in building better communities and in building communities better".

Using familiar examples--localized in the Champaign-Urbana vicinity, the book emphasizes the need for planning and design, for both profession and citizen participation in the process of building better communities, and introduces the idea that different kinds of land use can "fit together well and make a total community that can give satisfaction to the people who live in it."

Although used as a conservation course, the book goes further than that in stimulating awareness of the visual environment.

MATERIALS

88 page book containing 19 children's drawings and 131 photographs. Covers land uses common to all communities: houses and neighborhoods, entryways, landmarks, parks and playgrounds, open space, water, places to go by yourself, to gather together in and to shop. Currently, in manuscript form.

USE

Fifth grade in Champaign, Illinois.

ORIGIN

The book grew out of an Environment Contest held in 1968 by the Champaign County Development Council Foundation in upper elementary grades of the county's schools. The contest was intended to stimulate the children to an awareness of their surroundings. It required a drawing or verbal description of each participating child's favorite place which he thought added beauty to the community, accompanied by his reasons for the choice. The children's responses were so sensitive and their observation so keen that two writers-- with assistance from the Center for Upgrading Educational Services (CUES), the Curriculum Laboratory of the University of Illinois College of Education, and a professor of Urban Planning--were stimulated to write the primer and to incorporate

A I A COPE FOR EDUCATORS

in it some of the children's drawings. The principal consultant was Charles W. Rusch, the professor of architecture, University of Illinois. Information from the authors:

Susan C. Stone and Frances D. Quinn
811 W. Daniel Street
Champaign, Illinois 61820

CONCEPT AND EMPHASIS

Nine week course in which children experience the city visually and functionally; inventory neighborhoods and finally, build model neighborhoods.

URBAN
AFFAIRS

PHILADEL-
PHIA, PA.

4-9

MATERIALS

Mimeographed course outline and neighborhood questionnaire.

USE

In the Mantua-Powelton Mini-School, a brand new school for 120, housed in a warehouse. Information:

Mantua-Powelton Mini-School
3302 Arch Street
Philadelphia, Pennsylvania

A I A C O P E F O R E D U C A T O R S

Jr.
High
School

CONCEPT AND EMPHASIS

"to teach students the basic elements of problem-solving in the context of their own environment". Multi-media materials are available for the student-led problem of building a functionally and visually valid model city.

MODEL
CITY
PROJECT

PHILA-
DELPHIA
PENNSYL-
VANIA

The basic goals of the project are "not only to teach children about cities, but also to teach them how to learn--how to solve problems by gathering information, sorting through it, and applying the information to a specific problem, and evaluating the solution in terms of the specifics of the problem".

Developed as part of the social studies curriculum for junior high school, but not limited to that area.

MATERIALS

A 57 page looseleaf book describes the concepts of, and briefly, the techniques and methods used in Philadelphia. Sound films, filmstrips and maps listed relate, in part, to other cities.

USE

Used in eight Philadelphia public schools (1969-70)

ORIGIN

Developed during 1967-68 at Sayre Junior High School by Mr. Kenneth Lieberman of the Sayre faculty. Information:

K. Lieberman

The Model City Project

The School District of Philadelphia
Philadelphia, Pennsylvania

A I A COPE FOR EDUCATORS

High
School

CONCEPT AND EMPHASIS

Integrates cultural studies (architecture, art, literature, music) with other subjects in the regular ninth grade curriculum requiring no actual changes in curriculum and no additions of personnel.

CUE:
CULTURE
UNDER-
STANDING
AND
EDUCATION

MATERIALS

Teacher guides for enriching the study program in English, science, industrial arts and home economics. Guides present lesson plans on topics in the regular curriculum, with the addition of references to materials for demonstration and discussion of relevant cultural developments. Includes films, filmstrips, prints, books, field trips.

NEW YORK

USE

Used by 13 schools (of varied types, with students from all socio-economic-intellectual levels) for 1-1/2 years with considerable success. Now revised with some added subject matter.

ORIGIN

Developed as a pilot project in New York State with funds from the U. S. Office of Education.
Information:

Grace N. Lacy, Director of CUE
The University of the State of New York
The State Department of Education
Albany, New York

A I A C O P E F O R E D U C A T O R S

High
School

CONCEPT AND EMPHASIS

Concerned primarily with the boundaries of experience. The course was the author's very personal way of "confronting a wide range of problems." His class record and project cards are meant not as lesson plans, but to be "permissive, provocative, and stimulating."

MATERIALS

A 130 page looseleaf record of a year-long experimental course, VIZ ED. 120 project cards detailing specific exercises probing the "inner landscape" (self), "mapping, representing" (space, time), "sensory awareness", and "building and making" (structures, light, film).

ORIGIN

Developed and used in the new experimental school Murray Road, a Newton Public High School. Funded by the Newton Public Schools and the Educational Development Corporation. Information:

David Lowry Burgess
Murray Road School
Newton, Massachusetts

FRAG-
MENTS:
A WAY OF
SEEING, A
WAY OF
SEEKING

NEWTON
MASSA-
CHUSETTS

A I A COPE FOR EDUCATORS

High
School

CONCEPT AND EMPHASIS

Development of a one-year high school geography course. Organized on a settlement theme, the course focuses on the "varied institutions and technologies of societies around the earth". Many of the six units may also be used separately in history, economics and government courses.

Geography of Cities - six to eight weeks.
Study of factors influencing the location, structure, and growth of cities followed by construction of a model city.

Manufacturing and Agriculture - six to eight weeks. Role-playing activities involving site location of a factory, and operation of a farm.

Cultural Geography - three to four weeks.
Students explore different attitudes toward cattle around the world. Slides, maps and filmstrips are used to show cultural relativity.

Political Geography - four to five weeks.
Role-playing activities involve solving an international boundary dispute, redistricting of a state, and the solving of other political problems.

Habitat and Resources - six weeks
Emphasis on the interaction of man and his natural environment, for example, the use of resources.

Japan - three weeks
Comparison of Japan and North America, modernization of Japan, and the relevance of the Japanese experience for underdeveloped areas.

MATERIALS

Each of six units, available separately, contains a complete package of tapes, slides, a variety of readings, maps, games and other materials.

Supplementary reference volumes, one on local geography, and another on maps and air photos.

HIGH
SCHOOL
GEOGRA-
PHY
PROJECT

BOULDER,
COLORADO

A I A COPE FOR EDUCATORS

Teacher education materials designed for 10-15 hours instruction currently being tried out (spring 1970) throughout the U. S.

Newsletter, for the High School Geography Project available from the project office listed below.

USE

Extensive classroom tryouts and revision of provisional units, 1965-1968. Teachers, both with and without geographic background, and students from inner-city, suburban, and rural areas were involved.

ORIGIN

Begun in 1961. Funded by the Ford Foundation and the National Science Foundation, and sponsored by the Association of American Geographers, each unit was devised by a team of professional geographers in consultation with high school teachers and educational psychologists. Information:

High School Geography Project
P. O. Box 1095
Boulder, Colorado 80302

Each of the six units is being published separately by
The Macmillan Company
School Department
866 Third Avenue
New York, New York 10022

CONCEPT AND EMPHASIS

To get the students to involve themselves in a problem in which the teacher has no more experience than do they themselves. In the beginning the teacher set up a problem, such as housing for strange creatures from a distant constellation. Now students working in teams, choose and work on their own problems. The course held four hours per week for two months requires executing a project using the schools' wood-working, sculpture and/or sheet metal studios. Information:

Robert A Lloyd
Phillips Academy
Andover, Massachusetts

PHILLIPS
ACADEMY

ANDOVER
MASSA-
CHUSETTS

Univer- sity	In "Visual Education for Non-Professionals," non-professional students are introduced to aspects of visual disciplines in order to develop their capacities for evaluating visual problems. Offered in Carpenter Center for Visual Arts during 1969-1970, the course complements the Center's similar function. Information: Graduate School of Design Harvard University Cambridge, Massachusetts	HARVARD UNIVER- SITY Open to all Students
Univer- sity	"Multi-sensory Media for Learning", a lecture series held in spring 1969, included a talk and "happening" by Dr. Karl Linn of M. I. T. on "Education of, by, and for the Environment", during which the environment of Memorial Hall was transformed with simple materials to make its <u>space more inviting</u> . Information: Dr. Karl Linn Massachusetts Institute of Technology Cambridge, Massachusetts	MIT Open to all Students
Univer- sity	"Can Man Survive?", 1970's most popular course at the University of Oregon, attracted an enrollment of 2400 students. The course is interdisciplinary, and was initiated by three faculty members, one of whom is Robert Harris, head of the Architecture and Allied Arts Department. It deals with ecological and environmental problems. Information: Robert Harris, Dean College of Architecture and Allied Arts University of Oregon Eugene, Oregon	UNIVER- SITY OF OREGON EUGENE, OREGON Open to all Students
Univer- sity	Two courses are currently offered at the University of Colorado, one in the graduate school, one for junior year students, both based on the interdisciplinary approach to teaching and content. The graduate level course, "Environment and Public Policy," is open to qualified students in some 15 disciplines. The junior course, "Survey of Environmental Problems," is open to all students in the university. Faculty members listed for this course represent 20 different disciplines. Information: Professor Richard Whitaker School of Architecture University of Colorado Boulder, Colorado	UNIVER- SITY OF COLORADO BOULDER, COLORADO Open to all Students

Teacher Training	Developed by graduate student David Clarke, this unit, given in 1969, emphasized concepts and attitudes, not skills, and was directed at sensitizing the group (14 teachers) to the environment. The unit was offered through the University's Department of Architecture but was directed specifically at teachers, using a multi-media approach; literature, painting, sculpture, landscape (through slides of paintings and of nature). The program was based on Sommer's statement that architecture affects people just out of the focus of awareness, and was intended to bring this into focus and provide the tools for its continuous operation. Students built for themselves a small personal space with a requirement of a relationship to the group, decorated and compared each others; to aid in realizing the importance of space psychologically. Information: David Clarke Apartment 1-A, 300 8th Avenue Brooklyn, New Yoark 11215	EXPERIMENTAL PROJECT UNIVERSITY OF OREGON
Teacher Training	"Environmental Education Today for the Future" is a course for teachers (with credit) designed to 1) present the problems and issues stemming from man's interaction with his natural environment; and 2) suggest content, teaching methods and student activities at the elementary school level that will aid in developing appreciation of the interrelationships of man and his environment." Taught by an elementary school teacher education supervisor and a mathematics and science consultant, the seminars also included group leadership by members of the Northern California chapter's Committee on Public Education. The course given in the spring of 1970. Information: Arnold R. Pagano, Supervisor of Teacher Education (Elementary) University of California Berkeley, California	UNIVERSITY OF CALIFORNIA (BERKELEY) EXTENSION
	(See description under chapter projects)	NEW JERSEY CHAPTER
	(See description under chapter's projects)	DALLAS CHAPTER

CONCEPT AND EMPHASIS

A deliberately loosely structured, exploratory perceptual awareness project being designed as a classroom "tool" for alteration or amplification by the teacher. Conceived as material for severely limited budgets, space, and "teacher" time. To grow more sophisticated for older child, to include evaluation and judgment.

VICTOR GRUEN
FOUNDATION
FOR ENVIRON-
MENTAL PLAN-
NING

MATERIALS

Pilot program not published. Test materials include lesson plans with slides and photographs for comparison, field trips; class projects suggestions, an "interiors colors package" for older children.

USE

Oriented to situations at this first stage of development "offering widest possible variety in family income, ethnic background, and educational structure." Work with public schools reserved for later stage. "Four specific age levels, beginning with youngsters of 5 and continuing up through adolescence and perhaps beyond."

Seven test groups have used the program in Los Angeles for approximately 15 weeks. Wide range of groups of 1 to 30 pupils, 4-13 years old, all ethnic groups and incomes.

Test criticisms suggest informal groups as well as formal school groups can benefit from this approach. Materials, now catalytic in nature, rather than informational per se, indicate much more experimentation to perfect. Additional funding is being sought.

ORIGIN

Being developed by the foundation under the direction of Claudia Moholy-Nagy, Director. Information:

Victor Gruen Foundation
For Environmental Planning
315 North Beverly Glen Blvd.
Los Angeles, California 90024

KITS OF CLASSROOM MATERIALS
EDUCATIONAL GAMES

POLLUTION

- 4-6 C. Abt Associates, Inc., 55 Wheeler Street,
Cambridge, Mass., 02138. About \$6.00.
A game to "teach students the social, political
and economic problems involved in attempts to
control pollution.

NEIGHBORHOOD

- 4-6 C. Abt Associates, Inc., 55 Wheeler Street,
Cambridge, Mass., 02138.
A game in which development of an urban area
is simulated through plays on a gameboard.

MATCH, "Materials and Activities for Teachers and Children,"
American Science and Engineering, 20 Overland Street,
Boston, Mass., 02215

Developed under a grant from the U. S. Office of
Education by the Children's Museum, Boston. Units
for primary through grade 6. Each kit contains
materials to involve 30 children for 2-4 weeks and
is designed for circulation within a school system:

WATERPLAY KIT

- K-3 See MATCH
A water table with unbreakable things to manipulate;
also, recordings, films, and stories.

THE CITY KIT

- 3-5 See MATCH
Using films, photos, model buildings, and an aerial
photo, children create and plan cities, route a new
highway, make maps and are stimulated through
role playing to understand that life and the form of
the city are related.

HOUSES KIT

- 1-3 See MATCH
"An Eskimo igloo is compared with a Nigerian
mud-and-thatch house, to show how physical
settings call for different ways of life." Children
build a mud-and-bamboo wall, assemble an igloo,
scrape deerskin.

NETSILIK ESKIMOS KIT

See MATCH

3-4

"A seal hunt and other activities of Netsilik life are recreated through the use of authentic Eskimo tools, clothing, other artifacts, films and records."

THE ALGONQUINS KIT

See MATCH

3-4

"Children savor the daily life of the Northeast Woodland Indians, scraping deerskin, hafting an arrowhead, preparing food, assembling a trap, acting out stories of spirit help."

PADDLE-TO-THE-SEA KIT

See MATCH

4-6

"A classic story of the Great Lakes is made real through related objects and activities - the children cooperate in creating a large mural-collage, rigging a breeches buoy, bartering trinkets for furs, launching a class 'Paddle'."

IMAGINATION UNLIMITED KIT

See MATCH

4-6

"The child's awareness of his unique perceptions and his ability to express them are developed through the use of illustrated word cards, unusual objects, and movies."

JAPANESE FAMILY KIT

See MATCH

5-6

Clothing, dishes, decorative and religious objects, calligraphy materials and films aid in role-playing a contemporary, middleclass Japanese family.

A HOUSE OF ANCIENT GREECE KIT

See MATCH

5-6

A class, divided into archeological teams "discovers" artifacts that lead to deductions about what it was like to live in a Greek villa.

MATCH PRESS KITSee MATCH

5-6

"A 'publishing company' is set up with a portable press, type fonts, paper, ink, and instruction cards. Each class prints and binds its own book."

MEDIEVAL PEOPLE KITSee MATCH

5-6

"Using character books, costumes and props (falconry gear, psaltery, wool carders, etc.) children enact episodes in the life of a medieval manor."

BASIC CAMERA KIT

The Workshop for Learning Things, 55 Chapel Street, Newton, Mass., 02160.

All Ages

Camera and materials for 10 children.

EXPANDED CAMERA KIT

The Workshop for Learning Things, 55 Chapel Street, Newton, Mass. 02160.

All Ages

As in BASIC CAMERA KIT, for 30 children.

BASIC CARDBOARD CARPENTRY TOOL KIT

The Workshop for Learning Things, 55 Chapel Street, Newton, Mass. 02160.

5 Up and Teachers

Tools for use in making items out of cardboard.

COMPLETE CARDBOARD CARPENTRY TOOL KIT

The Workshop for Learning Things, 55 Chapel Street, Newton, Mass. 02160

5 Up and Teachers

Tools for use in making items out of cardboard.

BOOKS: STUDENT RESOURCES

MONT SAINT-MICHEL AND CHARTRES

- Adams, Henry; Houghton Mifflin/Riverside, First
pub. 1905, 397 pp., \$6.00.
- 11-12 The classic and passionate study of medieval
culture as expressed through the bones of its
great buildings. Would that we cared as much.

THE MAGIC STONES

- Alain; Whitlesey House, McGraw-Hill, 1957, 31 pp.
illus.
- 4-6 Clearly explains the discovery and principles
of the arch and how it was used in the construc-
tion of the Cathedral of Notre Dame. Also dis-
cusses the principles and practices of design in
a number of art forms - textiles, ceramics, and
painting. Unusual.

DESIGN OF CITIES

- Bacon, Edmund; Viking, 1967, 296 pp., \$15.00.
(To be revised and expanded in 1970)
- 11-12 The Philadelphia city planner states his thesis
that great urban design form ideas, once estab-
lished, have a force of their own that carries
them from one generation to the next. Brief
text accompanies rich illustrations of worldwide
great urban form achievements of the past and
present. Plan diagrams beautifully illustrate
growth and design form ideas. Content is limi-
ted principally to form in urban cores. May be
read non-sequentially.

THE ENVIRONMENTAL HANDBOOK

- Bell, Garrett de, Editor; Balentine, 1970, 365 pp.
paperback, 95¢.
- 10-12 Background on ecology prepared for the first en-
vironmental teach-in. A collection of articles.

GOD'S OWN JUNKYARD, The Planned Deterioration of America's Landscape.

Blake, Peter; Holt, 1964, 143 pp., illus.

- 10-12 How the natural beauty of this country is being destroyed in many ways, including public indifference, is graphically shown through photographs.

THE MASTER BUILDERS

Blake, Peter; Knopf, 1960, 399 pp., illus.

- 10-12 By describing the lives of Le Corbusier, Mies van der Rohe, and Frank Lloyd Wright, the author presents a view of modern architecture, how these three men have been influential in the development of architecture today and how they have changed the look of the urban areas in which we live.

COSMIC VIEW

Boeke, Kees; John Day Co., \$3.75.

- All Ages Written for children; helpful in understanding distance, space and scale. Shows the scope of the universe in 40 pictorial jumps. The first picture is of a girl sitting in a chair, in front of school with a cat in her lap. Each following picture is drawn from an imaginary spot ten times "further up" than the previous one, the last one being near the edge of infinity.

TEXTURES

Broadatz, Phil; Dover, \$2.50.

- 3-12 Offers visual stimulation through 112 plates of photographed textures.

MAIN STREETS OF SOUTHEAST ASIA

Buell, Hal; Dodd, Mead, 1962, 128 pp., illus.

- 3-9 Brief vignettes from Hong Kong and Manila, to Singapore and Burma of people and the way they live (mostly in cities). Written for children in simple text. Visual aid supplements for cities of this area of the world would add a great deal.

KATY AND THE BIG SNOW

- Burton, Virginia Lee; Houghton Mifflin, 1943.
Illustrated by the author.
 2-3 Katy, the red crawler tractor, makes the service systems of the town work again by digging it out of a snow storm. Basic services are enumerated. Katy never does anything bad in this story.

THE LITTLE HOUSE

- Burton, Virginia Lee; Houghton, 1942, 40 pp., illus.
 1-4 The concept of city growth is presented at picture book level in this story. It shows how neighborhoods change and what happens as cities grow and devour more and more open space.

KEYS TO ART

- Canaday, John; Tudor, 1963, 182 pp., illus.
 10-12 Sources for works of art, themes used by artists, and great buildings are some of the things discussed which explore the different areas of art, including painting, sculpture, and architecture.

LOOKING AT ART

- Chase, Alice E.; Crowell, 1966, 119 pp., illus.
 7-9 Uses examples of similar subjects as painted by various artists to help the reader become aware of the development of art and provide "an appreciation of the many ways of seeing." Handsome and useful in a number of ways.

NIGHT PEOPLE

- Colby, C. B.; Coward - McCann, 1961, 48 pp., illus.
 3-6 People in the city who make technology run through the night. An interesting introduction for the young child to aspects of the city which many of us never see.

TEAR DOWN TO BUILD UP, The Story of Building Wrecking

- Colby, Jean Poindexter; Hastings House, 1960, 56 pp.
 3-6 Tools and machinery for wrecking, kinds of workmen and crews, how a building is wrecked, reasons for wrecking. Only the constructive reasons for and results of wrecking are discussed. Good as far as it goes, but now that we have this devastating ability, needs supplementing with insights into the morality of its use.

PETER'S BROWNSTONE HOUSE

- K-2 Coleman, Hila; Morrow, 1963, unp., illus.
A picture book which shows how New York has grown and changed. Present day life is contrasted with that of "olden times," pointing out the importance of preserving some older buildings of the city.

CONCERNING TOWN PLANNING

- 11-12 Corbusier, Le (Charles Edouard Jeanneret); Yale Univ., 1948, 127 pp., sketch illus.
Written just after World War II. The architect poses and answers 18 questions on the issues of 25 years ago; some translated to America still are relevant for holding up what we want the city to be. His sketches should not put off the uninitiated from dipping into questions that interest them.

TOWARDS A NEW ARCHITECTURE

- 10-12 Corbusier, Le (Charles Edouard Jeanneret); The Architectural Press
A simple statement of environmental philosophy by one of the 20th century's finest architects. It first introduced the writings of Le Corbusier in English and was an exposition of the modern movement in architecture. Enjoyable, easy reading, it is a short but important work that has had great influence on architectural thought.

ARCHITECTURE: CITY SENSE

- 11-12 Crosby, Theo; Reinhold, 1965 illus., paperback, \$2.95.
The author considers the city man's greatest invention; he attempts to develop a coherent approach to city living through an understanding of its elements and functions.

TOWNSCAPE

- 8-12 Cullen, Gordon; Reinhold, 1961, \$12.00.
An analysis of the elements that make up the visual city. Brief texts and numerous pictures explain components and architectural terms. Cullen writes of our emotions as affected by the juxtaposition of buildings as we move through a city; its fabric (color, texture, scale, style, character) and our physical relationship to the environment. Can serve as an illustrated dictionary; an excellent reference book.

TO GRANDFATHER'S HOUSE WE GO

- 3-5 Devlin, Harry; Parents' Magazine Press, 1967.
Presents the styles which are representative of American domestic architecture from Colonial times to the late 1800's. Well illustrated.

DISCOVERING DESIGN

- 9-12 Downer, Marion; Lothrop, 1947, 104 pp., illus.
and All Can bring pleasure by just leafing through it.
Ages By use of unusually good photographs, serves to bring an awareness of the beauty of design which surrounds us; in order to appreciate we need only to use our eyes. For introducing anyone of any age to awareness of design in the environment, but particularly valuable to young persons., "Design is everywhere in the universe, but it is hidden from us until we become aware of it," says the first brief text. Uses nature, man-made objects, and formed art, to introduce beauty of line, pattern, rhythm, and abstraction. Provocative and exceptional.

ROOFS OVER AMERICA

- 5-9 Downer, Marion; Lothrop, 1967, 75 pp., illus.
Handsome and valuable book from an outstanding author in which a child's eyes might be opened to one aspect of the world around him.

THE STORY OF DESIGN

- 5-12 Downer, Marion; Lothrop, 1963, 216 pp., illus.
and How man from primitive times to the present has
adults expressed his love of beauty through design in everyday useful objects as well as in works of art. A brief text accompanies excellent large photographs. This prize-winning book in itself is an example of good design.

VERONICA

- 2-3 Duvoisin, Roger; Knopf, 1961, unp. illus. by the author.
A hippopotamus visits the city. Fun.

LANDSCAPE FOR LIVING

- 10-12 Eckbo, Garrett; F. W. Dodge, 1950, 208 pp. plans.
Text on landscape architecture, history, theory, specific conditions, planning. Classic for modern landscape architecture.

URBAN LANDSCAPE DESIGN

- 10-12 Eckbo, Garrett; McGraw-Hill, 1964, 248 pp.
Case studies, abundant illustrations: the book defines landscape quality, the processes which produce it and those which can be used to improve it. A view of landscape as the result of interaction between man and "non-human" nature.

THE WING ON A FLEA

- K-2 Emberley, Ed.; Little, Brown, 1961, 48 pp., illus.
Describes things to be enjoyed if we open our eyes and look. In a delightful way geometric shapes are used to introduce basic concepts of design to the younger child, based on the recurrence in various forms and various objects of the three basic geometric forms: triangle, rectangle and circle. A book children will enjoy as will the adult who shares it with him. The illustrations are happy and bright, without being great.

THE DYNAMICS OF CHANGE

- 6-12 Fabun, Don; Prentice-Hall, \$8.95.
The excellent pictures and text cover a wide range of subjects. Starting with world wide change beginning shortly after World War II, it takes the reader through the changes brought about by telemobility and automation and confronts him with foreseeing the unforeseeable; suggesting what the world will be like when some of the things that could happen do happen.

PLANNING AND COMMUNITY APPEARANCE

- 10-12 Fagin, Henry, and Robert G. Weinberg, Editors:
Report of the joint committee on design control
of the New York Chapters of the AIA and AIP;
Regional Plan Association New York, 1958,
160 pp., illus, bibliography, paperback.
- An introduction to the problems of public
aesthetic controls. Action through public
boards, the process of creating a municipal
design plan, legislation here and abroad, new
legal concepts, and excerpts and abstracts from
existing legislation and court decisions are
discussed in this very helpful work. Visual
graphics are well done but incidental to this
mature, possible text.

THE CREATIVE EYE

- 8-12 Fearing, Kelley, and Beard and Martin; W. S.
Benson, 1969, Vol. I, 128 pp., \$5.60.
- Over 80 compelling color photographs, addi-
tional black and white ones, and brief, simple
text on "seeing." Painting, sculpture, archi-
tecture and applied crafts of many media are
related. Illustrations chosen by the gifted eye
of the artist from major works. Unusual and
provocative, to be considered for every school
library and evaluated for fields other than art.
- 8-12 Vol. II., 128 pp., \$5.60.
- A great variety of handsome color photographs
related to brief text. Organized around five
ideas: aesthetic response to moods of nature;
personal views of nature with meaning; fantasy,
mystery, dreams, symbols, and fun; architecture
and other media; and art as environment.

VILLAGE PLANNING IN THE PRIMITIVE SOCIETY

- 9-12 Fraser, Douglas; George Braziller, \$5.95.
- Contains almost eighty pictures and eight de-
tailed accounts of village systems that have
worked for Cheyenne Indians, Trobriand Is-
landers, Mbuti pygmies and others. The
systems are diverse and eye opening for
approaching the restructuring of any community.

THE ROOTS OF JAPANESE ARCHITECTURE

- All Ages Futagawa, Yukio; photographer, with text and commentaries by Teiji Itoh, and a forward by Isamu Noguchi; Harper and Row, 1962, 208 pp., \$25.00.
 "The audacity of this book is not its novelty so much as the surprising degree to which it succeeds: its panoramic view has a shape and method which somehow goes beyond popularization to catch . . . the spirit underlying ancient Japanese architecture and space." For leafing or pondering, comes closer to the reality of experience than books have a right to do. Beautiful, giant format encompassing history, cultural geography, ethnology, and a marvelous strong contrast to contemporary America.

UNDERSTANDING THE ARTS

- 10-12 Gardner, Helen; Harcourt, 1932, 336 pp., illus.
 Contains a good discussion of the various forms of art and architecture and how to look at them. Of particular interest is the first chapter entitled, "Eyes to See."

WHERE THE PEOPLE ARE, CITIES AND THEIR FUTURE

- 7-9 Gay, Kathlyn; Delacorte, 1969, \$3.50.
 The magnetism of the city and its future; the individual's importance in the city.

THE MEANING AND WONDER OF ART

- 8-12 Gettings, Fred; Golden Press, 1953, 91 pp., illus.
 An introduction to the world of art; basic aesthetic concepts and how they are used in creating a work of art. Interesting comparisons between a painting and the interior of a building, or between a painting and an art object (or an artifact) to point up the different effects of using vertical lines in two dimensions and in three dimensions. It also suggests the elements of expression in art -- rest, rhythm, movement, pattern, curves, spirals, and others. Its span of illustration, in black and white and in color, runs from the Lascaux caves to Jackson Pollock, from Ionic caps and a Gothic cathedral to Mondrian, Cezanne, and Le Corbusier.

SPACE TIME AND ARCHITECTURE

- Giedion, Sigfried; Harvard University, 1962, 778 pp., illus., \$17.50.
- 10-12 The classic study of the roots, development and trends of modern architecture and planning as contrasted with its historical background. The standard college text on the modern movement. Chapters may be entered non-sequentially.

HOW THE WORLD'S CITIES BEGAN

- Gregor, Arthur S.; E. P. Dutton, 1967, 64 pp., illus.
- 4-6 The gradual development of the first cities. Well-organized text and simply written. The final chapter deals with the problems of today's fast growing cities and the challenge they present to modern man.

A BIG CITY

- Grossbart, Francine; Harper, 1966, unp., illus.
- K-1 For the younger child, an ABC book using objects found in a large city to illustrate the letters of the alphabet.

THE HIDDEN DIMENSION

- Hall, Edward T.; Doubleday, 201 pp., \$5.50 hardback, \$1.45 paperback.
- 9-12 An anthropologist examines man's use of space in public and private places. He discusses the relationships between crowding and social behavior, and our sensual (visual, auditory, and olfactory) perceptions of space. Each man's invisible bubble of space that constitutes his "Territory" is contrasted for different cultures and different social situations. Important.

CITIES

- Halprin, Lawrence; Reinhold, 1963, 224 pp., \$15.00.
- All Ages Satisfaction for the personal, physical and psychological needs of man in the city. Handsome examples of the intimate detail of city surfaces and forms all explicitly laid out for review. Richly illustrated, a picture book for younger people, and full of hope for the adult. What cities ought to be like.

FREEWAYS

- 8-12 Halprin, Lawrence; Reinhold, 1966, 160 pp., \$15.00.
What freeway has done to us, and what to do about it. Brief text accompanies the problem stated visually in pictures and solutions stated graphically. Excellent, imaginative.

NEW YORK, NEW YORK

- 10-12 Halprin, Lawrence; 1968, Chapman Press, 119 pp., illus., \$5.00.
A report prepared for the City of New York and HUD. A study of the quality, character, and meaning of open space in urban design. While New York's problems are not today every city's, its human problems may become every city's. Suggests ways of tackling order and human needs at the neighborhood, dense city scale.

THE YOUNG DESIGNER

- 5-12 Hart, Tony; Warne, 1968, \$3.95.
Toward an understanding of good design, and its applications.

PIONEER TEXAS BUILDINGS: A GEOMETRY LESSON

- 3-8 Heimsath, Clovis; Univ. of Texas, 1968, 159 pp., \$12.50.
Anonymous small buildings of simple volume are related to geometry solids and voids by means of large photographs, clear sketches and captions. No text and large format make this an easy tool to introduce abstractions to children.

FROM TEPEES TO TOWERS

- 5-9 Hiller, Carl E.; Little, Brown, 1967, 106 pp., illus.
A brief survey of American architecture presented by means of striking and well-chosen photographs and a limited text. Attractive; for many different ages.

WHERE IN THE WORLD DO YOU LIVE?

- K-3 Hine, Al; Harcourt, 1962, unp., illus. by John Alcorn.
A basic approach to geography for the young child. Valuable for making a child aware of the physical world around him and his place in it. An interesting book with attractive illustrations.

AMERICAN HOUSES: COLONIAL, CLASSIC, AND CONTEMPORARY

- 7-9 Hoag, Edwin; Lippincott, 1964, 160 pp., illus.
This history of domestic architecture explains some of the influences upon man: how he lives, where he lives, and how they have affected what he builds, and are reflected in various architectural styles and periods.

THE LANGUAGE OF CITIES

- 6-12 Hosken, Franziska P.; MacMillan, 1968, bibliography, \$9.95.
Excellent to introduce the reader to the vocabulary of function and design within the man-made environment. It is very helpful in understanding the basic elements of and a means of communicating about city structure. Well illustrated.

Sets of color slides, with texts and teaching guides, coordinated with the chapters of this book are available. For information write to:
Architectural Color Slides
187 Grant Street
Lexington, Mass. 02173

TRANSPORT DESIGN

- 10-12 Hughes-Stanton, Corin; Reinhold, \$2.45.
An analysis of the problems in designing transport vehicles as related to their function, form and environment.

ENTRANCES AND STAIRCASES

- 5-12 Iliffe Books, Ltd., \$11.50.
Pictorial essay of entrances and staircases showing variety in design, function and construction.

WROUGHT IRON RAILINGS, DOORS AND GATES

Iliffe Books, Ltd., \$11.50.

- 5-12 Pictorial essay of wrought and forged iron work in and on a variety of structures. Useful in stimulating awareness of variety.

A BUILDING GOES UP

Kahn, Ely Jacques; Simon & Schuster, \$3.95.

- 6-12 A short illustrated book describing the steps in constructing a building from preliminary plans to the "installation of the last water cooler."

DESIGN OF THE HOUSING SITE

Katz, Robert D.; University of Illinois, \$7.95.

- 8-12 A richly illustrated presentation on alternative ways of grouping houses and apartments on various sites. Includes information about zoning, building codes, regulations and controls.

EXPLORING ART

Kainz, Luise C. and Olive Riley; Harcourt, 1947.

- 9-12 A well-written textbook suitable for secondary school art appreciation classes. Can help the student to look at things more keenly and to interpret what he sees and develop some standards of judgment. In addition to fine arts; industrial design, advertising, architecture, and community planning are discussed.

THE WILD GARDENER IN THE WILD LANDSCAPE

Kenfield, Warren G.; Hafner Pub. Co., 1966, 232 pp., illus., \$7.50.

- 10-12 A guide for the development of open spaces, both on private places and on large scale projects where cooperation with nature is more important than costly maintenance procedures. Art and science of naturalistic landscape with minimum effort. No lawn mowing, no cultivation, no fertilizing, no insect and disease control.

THE HOUSE

- Kennedy, Robert Woods; Reinhold, \$6.95.
- 10-12 An architect speaks to the layman on the "art of home design." The design of a house in terms of its functions and structure; interpreted through the architect-client relationship.

EDUCATION OF VISION

- Kepes, Gyorgy (ed.); Braziller, 1965, 233 pp., illus. (Vision and Value series)
- 10-12 Concerned with helping in the development of "visual literacy." Good resource material for teachers involved in teaching various aspects of this topic. There are 6 volumes in the series.

THE WORM, THE BIRD, AND YOU

- Kessler, Leonard; Dodd, 1962, unp., illus.
- K-2 The fundamentals of perspective are presented in a charming way in this fascinating picture book.

WHAT'S IN A LINE?

- Kessler, Leonard; Wm. R. Scott, 1951, unp., illus.
- K-2 A first book of graphic expression. Shows what a line is, where it can go, how it can grow and what can be done with it.

HISTORY OF WESTERN ARCHITECTURE

- King, Mary Louise; Henry Walack, 1967, 224 pp., illus., \$7.50
- 6-12 From man's first crude attempts at building shelter to the modern complexities of today's glass and steel structures. The author explains the influences on much of the architecture in the United States through its historic connections.

THE JAPANESE HOUSE

- Kiyoko and Tatsuo Ishimoto; Bonanza, \$2.98.
- 3-12 An extensive collection of illustrations and photographs of Japanese houses. The contrast between American and Japanese design is easily recognizable. The basic elements and many variations of the Japanese house are shown as they can be adapted for American use.

ART HAS MANY FACES

- 10-12 Kuh, Katharine; Harper, 1951, 185 pp., illus.
The nature of art presented visually. Pictures are used as a means of explaining the basic aspects of art. The text is purposely limited; similarities and differences can be better compared in the visual examples. Interesting.

ART AND LIFE IN AMERICA

- 11-12 Larkin, Oliver W.; Rinehart, 1949, 547 pp., illus.
The development of architecture, sculpture, and painting in America are surveyed. Useful in helping a student understand how art and architecture have been influenced by the way in which this country, its people, its cities have evolved and expanded.

OF CITY STREETS

- All Ages Larrick, Nancy; J. B. Lippincott, \$4.95.
An anthology of poetry about the city and its people.

HIGH-RISE SECRET

- 3-5 Lenski, Lois; Lippincott, 1966, 152 pp., illus.
A fictional account of life in a high-rise housing project for low-income families in a large city.

THE SKYSCRAPER

- 2-3 Liang, Yen; Lippincott, 1958, 48 pp., illus.
The concept of city planning is graphically presented for the younger child. A striking and unique book.

THE BIGGEST HOUSE IN THE WORLD

- 1-4 Lionni, Leo; Pantheon, \$3.95.
The building of a house from a snail's point of view. It is interesting to see how an animal attempts to change his environment.

DESIGN IS A DANDELION

Lovoos, Janice; Golden Gate Junior Books, 1966,
62 pp., illus.

3-6

To introduce children to the wonders of design all around them, "nature is the great designer," uses examples found in nature to explain such things as form, texture, balance, rhythm, and contrast.

CITIES IN A RACE WITH TIME

Lowe, Jeanne R.; Random, 1967.

11-12

The urgent problems of large urban areas in America today. Beginning with a critical history and then using a series of case histories, the author shows the measures that have been undertaken by some of our large cities to alleviate the growing troubles that they must face. Well written.

THE VISUAL EXPERIENCE, AN INTRODUCTION TO ART

Lowry, Bates; Abrams, 1961, 272 pp., illus.

10-12

A survey of the many elements of art in which the reader is shown three ways of looking at art; through the eyes of the observer, the artist, and the critic. The well integrated text is illustrated with specific examples which relate to a point as it is being discussed. Interesting.

GOING FOR A WALK WITH A LINE

MacAgy, Douglas; Doubleday, 1959, unp., illus.

3-6

Modern art is introduced in this colorful book for young children. Imaginative and well illustrated. A minimum of text.

A BOOK ABOUT CITIES

McFee, June; unpublished, 34 pp., illus.

3-4

This book is in testing.

DESIGN WITH NATURE

- McHarg, Ian L.; American Museum of Natural History, Natural History Press, 1969, 198 pp., 11-1/4 x 11-1/4, \$19.95.
- 10-12 Man's relation to his environment as a whole. This handsome book exudes values for saving the land and the city. Process and form in nature and in the man-made environment are related, for example, through a clear discussion of Enfant's original planning of Washington, D. C. A chapter on health and pathology engendered by the environment has vivid illustrations. To be considered for every school library for many uses.

ARCHITECT, CREATING MAN'S ENVIRONMENT

- McLaughlin, Robert W.; MacMillan, 1962, 201 pp., illus.
- 10-12 How an architect prepares for his career, what he does professionally, the importance of architecture today, and the increasing need for more attractive and useful buildings and therefore, the need for more architects.

BEDROOMS

- Meade, Dorothy; MacDonald & Co., Ltd., \$2.00
- All Ages The mystique, functions and furniture of the bedroom are discussed and illustrated. Illustrates variety of choice.

THE PUSH CART WAR

- Merrill, Jean; W. R. Scott, 1964.
- 6-9 This fictional book is a satire of New York in the 1970's. It describes one of the problems of life in the city - traffic and what happens when the push cart peddlers take a stand against the truck drivers of New York.

THE MANY WAYS OF SEEING

- Moore, Janet Gaylord; World, 1967, 144 pp., illus.
- 7-12 An introduction to aesthetics. Using everyday things as well as works of art, to make the reader aware of the beauty which is all around. The text discusses line, form, composition and textures.

I THOUGHT I HEARD THE CITY

- 4-8 Moore, Lillian; Atheneum, 1969, illus., \$3.75.
Poetry evoking the city in its many faces.

OF WONDER AND A WORLD

- 3-8 Morman, Jean Mary; Art Education, Inc.
Art appreciation developed through questions and projects to stimulate an awareness and development of critical powers.

THE CIRCUS IN THE MIST

- 5-12 Munari, Bruno; World, \$4.95.
The book is a work of art that shows the changes of the city's moods and colors and pace through the author's creative use of paper color and poetic text. Good for getting a fresh, light look at the city.

PLANNING OUR TOWN

- 10-12 Munzer, Martha E.; Knopf, 1964, 179 pp., illus.
One of the few books specifically for young people concerned with city planning. Included are chapters on rebuilding older parts of cities, starting from the beginning and planning a brand new city, problems of water and air pollution, and the race for open space and how to best utilize it. A very good book.

OUR NOISY WORLD

- 6-12 Navarra, John Gabriel; Doubleday, \$4.50.
Noise pollution is a growing problem in our industrialized societies. Explains both the impact of noise on our well-being and the mechanisms of sound transmittance.

ENCYCLOPEDIA OF MODERN ARCHITECTURE

- 5-12 Pehnt, Wolfgang; Harry N. Abrams, Inc., \$15.00.
Reference book with 400 illustrations and brief texts concerning architects, buildings and related subjects. Very useful for finding specific information concerning architecture.

THE NATURE OF DESIGN

Pye, David; Reinhold, \$1.95.

- 10-12 Design as the common ground between science and art is analyzed in this short but informative book. Areas of design such as the role of economics, the meaning of function, the limitations of techniques are examined.

ARCHITECTURALLY SPEAKING

Raskin, Eugene; Delta, \$1.95

- 10-12 A light witty book about architects and their vocabulary. The abstraction is removed from words such as style, proportion, rhythm, and scale; these are discussed in terms of the emotions they evoke as experienced through architecture. A short book that can be enjoyed in an evening.

EXPERIENCING ARCHITECTURE

Rasmussen, Steen Eiler; M. I. T., 1959, \$2.95.

- 10-12 The book attempts to transmit the intellectual excitement of fine design. It identifies and discusses in a clear lucid style the elements that an architect works with every day. It arouses an interest in and an understanding of what the architect does. It is a good introductory book to architecture. Its beautiful pen and ink sketches offer insight into communication other than verbal.

TOWNS AND BUILDINGS

Rasmussen, Steen Eiler; Harvard, 1951, 203 pp., \$4.25. Illustrated by the author.

- 11-12 Gentle Danish humor makes this book a delightful way to discover visual principles of city organization. The examples are all other than American, but the elegant ink sketches amplify the appealing cultural history superbly. A chapter on land speculation is worth noting. To be cherished and returned to again and again.

NEW MOVEMENT IN CITIES

Richards, Brian; Reinhold, \$2.75.

Discussion of the movement and transport of people within the short distances of the city.

A MAP IS A PICTURE

Rinkoff, Barbara. Illus., by Robert Galster Crowell; 1965, unp.

- 1-4 A handsome introduction to all kinds of maps and symbols for map making, for the younger child. Well done.

YOUR ART HERITAGE

Riley, Olive; Harper, 1952, 320 pp., illus.

- 10-12 Art appreciation textbook written in an attractive style and well illustrated.

CAVES TO SKYSCRAPERS

Robbin, Irving; Grosset & Dunlap, \$1.00.

- 4-12 An elementary exposition of how people throughout history have adapted shelter to their basic life needs.

ARCHITECTURE WITHOUT ARCHITECTS

Rudofsky, Bernard; Museum of Modern Art/Doubleday, 1964, 157 pp., paperback.

- All Ages "An introduction to non-pedigreed architecture." Rich photographs, uncluttered by extensive explanations, of strong, sometimes elegant, always unassuming, beautiful buildings. Examples of mankind's wonderful and powerful imagination.

STREETS ARE FOR PEOPLE

Rudofsky, Bernard; Doubleday, illus., \$14.95.

- 8-12 Discusses the street as the lifeline of urban civilization. It explains the history of streets by tracing their development within a dozen different countries. It offers general background information about the role of the street within a community but it does not go into the problems confronting the big city streets in the United States today. Beautifully illustrated, enjoyable.

SQUARES ARE NOT BAD

- 3-9 Salazar, Violet; Golden Press, \$2.50.
A children's book concerning geometric shapes and their interrelationships.

THIS IS NEW YORK

- 3-6 Sasek, Miroslav; MacMillan, 1960, 60 pp., illus.
The excitement and feeling of all aspects of life in our largest city from its tallest buildings to its smallest fire hydrants have been captured and put into this delightful and attractive picture book. It is factual as well as fun. A book to be enjoyed by many ages. Others in this series: This Is San Francisco and six others on various European cities.

OLD CITIES AND TOWNS

- 10-12 Schwartz, Alvin; Dutton, \$5.95.
Using Philadelphia as a case history, the author presents the problems of city planning as they affect and relate to the individual. An excellent introduction to the dominant problems facing cities today.

THE CITY AND ITS PEOPLE

- 4-6 Schwartz, Alvin; Dutton, 1967, 64 pp., illus.
Primarily concerns city government, explaining complex functions of various city agencies. The text is brief and illustrated with good photographs which give a clear picture of today's typical city. The need and demand for federal funds is explained in a section on urban renewal.

CITIES

- 10-12 A Scientific American Book, Knopf, 1965, 212 pp., \$2.45 paperback.
A collection of papers heralding the opening of a new phase in human evolution. Calcutta, Stockholm, Ciudad Guayana, and New York show the diversity of the new form of human settlement, and illustrate in different ways how far men have failed to make their cities fit for habitation. The paradoxes of scarcity and plenty are discussed, with a final chapter on humanizing the city.

ROUND AND ROUND AND SQUARE

- K-2 Shapur, Fredun; Abelard-Schuman, 1965, illus.
By using the geometric shapes the author shows many ways of putting them together and in doing so, introduces basics of design and proportion.

LANDSCAPE ARCHITECTURE

- Simonds, John Ormsbee; F. W. Dodge, 1961,
244 pp., illus., photos, plans.
An outline of landscape planning process. An introduction to the forms, forces, and features of the natural and man-made landscape. Covers personal to regional landscape planning.

THE CITIZEN'S GUIDES TO ZONING, PLANNING AND URBAN RENEWAL

- 10-12 Smith, Herbert H.; Chandler-Davis, 1969.
Brings before the lay public an explanation of the intricacies of planning, zoning, and urban renewal. Appropriate for professional and educational circles.

CULTURAL GEOGRAPHY

- 10-12 Spencer, J. E., and Wm. L. Thomas; Wiley, 1969,
591 pp.
Written as a text. Using an evolutionary rather than topical or regional approach, has the objective to outline how the surface of the planet Earth has been changing during the time span of human occupation, and how, in using that surface, human technology has grown. A basis for study of man and society with realization that man's accomplishments are based on the limits of the earth's physical and biological condition. Chapter Four on differentiation of cultures in growth includes architecture and settlement patterns. Chapter Eleven on space intensification techniques, includes urbanization and vertical use of space. Well illustrated; bibliography.

URBAN DESIGN: THE ARCHITECTURE OF TOWNS AND CITIES

Spreiregen, Paul D.; McGraw Hill, 1965, 243 pp., \$12.50.

- 8-12 Reviews the development and design of towns, cities and regions as they spread across the American landscape. An aesthetic reflection of man's interaction with nature.

HOW PEOPLE LIVE IN THE BIG CITY

Stanek, Muriel; Benefic, 1964.

- 1-3 City life in its many forms is described in this elementary textbook. Schools, recreation, housing and public services are some of the things discussed. Adequately illustrated by photographs and drawings; a simple vocabulary has been used.

SIGNS IN ACTION

Sutton, James; Reinhold, \$2.25.

- All Ages Pictures of signs, mostly in use today, and a discussion of their functions as a medium.

LEARNING TO LOOK: A Handbook for the Visual Arts

Taylor, Joshua C.; Phoenix Books, University of Chicago, 1963, 152 pp., illus.

- 11-12 Initially designed as a guide book for the art portion of a humanities course at the University of Chicago, this book was planned to give the student an over-all picture of the visual arts. Included are discussions of color, perspective, graphic arts, sculpture, architecture and how to analyze a work of art.

WAKE UP, CITY

Tresselt, Alvin; Lothrop, 1957, unp., illus.

- K-1 The sights and sounds and lively tempo of life in the city are depicted in the book for the younger child.

AMERICAN SKYLINE

- 10-12 Tunnard, Christopher, and H. H. Reed; Houghton Mifflin, 1955, 307 pp., \$5.00.
Links the development of our cities with the broad cultural manifestations of our history. A social and visual history of urban America, showing how we, by using the weapons of art and our traditions, can plan the future urban place. Illustrated sparsely with our accomplishments to date.

THE CITY OF MAN

- 10-12 Tunnard, Christopher; Scribner's, 1953, 424 pp.
A synthesis of city building, art, and architecture in cultural history relating America to its Western European antecedents; the traditions which have formed our cities, and the human qualities which next need to be brought forth in three-dimensional civic design. A possible text with the aid of supplementary visual material.

THE OTHER CITY

- All Ages Vogel, Ray; David White, 1969. \$4.75.
Four teenage boys explore their part of the city with their own photographs and words.

PERSPECTIVE

- 8-12 Vries, De, Jan Vredeman; Dover, \$2.25.
73 plates with limited text depicting through perspective drawings of buildings, the most famous art of eyesight.

IT LOOKS LIKE THIS

- K-1 Webber, Irma E.; Hale, 1958, unp., illus.
Shows how an object can have as many appearances as there are ways of looking at it. An unusual book which is valuable in explaining a concept which is sometimes difficult for a young child to grasp.

WHAT IT FEELS LIKE TO BE A BUILDING

- 2-6 Wilson, Forrest; Doubleday, 1969, illus. \$3.50.
 A visual book, humorous, with brief text explaining the components of architecture.

SATURDAY WALK

- K-1 Wright, Ethel; Scott, 1954, unp., illus.
 What a little boy sees as he walks with his father through the city.

VARIOUS DWELLINGS DESCRIBED IN A COMPARATIVE MANNER

- 1-5 Wurman, Richard Saul; Joshua Press, \$6.95.
 A delightful collection of comparative descriptive drawings of dwellings from around the world through history. Book is also helpful in understanding perspective and architectural drawings.

ARCHITECTURE AS SPACE, How to Look at Architecture

- 10-12 Zevi, Bruno; Horizon, 1957, illus.; \$10.00.
 The author suggests that the reality of a building is not its roof or its walls, but rather, the space they enclose.

LATER ADDITIONS:

CITY IN ALL DIRECTIONS

- 10-12 Adoff, Arnold; Macmillan, 1969.
 The sights and sounds experienced by those who live in the city are the subjects for the poetry in this anthology.

MEN OF MODERN ARCHITECTURE

- 7-9 Forsee, Aylesa; McCrea-Smith, 1965.
 The life and works of architects who are involved in the shaping of our environment. Well-written. Illustrated.

ART IN EVERYDAY LIFE

- 10-12 Goldstein, Harriet and Vetta Goldstein; Macmillan, 4th ed., 1954.
 Basically a textbook for home economics classes, the authors have tried to create a concern for style and beauty, an appreciation for these qualities and how to apply them in our surroundings both in our own homes and our cities.

BUILDING A SKYSCRAPER

Iger, Martin; Young Scott Books, 1967.

- 7-9 The building of 90 Park Avenue, N. Y. Follows the stages of construction from beginning to end. Glossary.

FATHERS OF SKYSCRAPERS

Kaufman, Mervyn; Little, 1969.

- 7-9 A biography of Louis Sullivan, turn-of-the-century Chicago School architect.

GOGGLES

Keats, Ezra Jack; Macmillan, 1969.

- K-3 Colorful collage illustrations depict young boys at play in the inner-city.

DOWNTOWN: OUR CHALLENGING URBAN PROBLEMS

Liston, Robert A.; Delacorte, 1968.

- 7-9 Discusses with great perception the broad spectrum of problems which face urban areas. Well organized and written in a lively style.

THE DESTRUCTION OF LOWER MANHATTAN

Lyon, Danny; Macmillan, 1969.

- 7-12 A stunning book of photographs which dramatically shows the piece by piece demolition of a historic neighborhood in Manhattan. A graphic protest against what is going on today in many cities across the country. An outstanding book that could be used in many ways by a number of ages.

SO YOU WANT TO BE AN ARCHITECT

Meinhardt, Carl; Harper, 1969.

- 10-12 Architecture as a profession. The requirements and training of the architect, "the challenge of architecture," "what is architecture" suggests that the architect must today "be in the center of things, both socially and politically." Bibliography, index and list of accredited schools of architecture.

THE INNER CITY MOTHER GOOSE

Merriam, Eve; Simon and Schuster, 1969.

- 7-12 By rewording Mother Goose and using striking photographs, this book gives a lucid picture of the grim existence of the children in the ghetto of a large city. A very dramatic way of "telling it like it is." This book should be seen by everyone concerned with urban problems.

SO WHAT ABOUT HISTORY?Morgan, Edmund S.; Atheneum, 1969.

- 4-6 We can learn a lot about the past by examining the "junk" people leave behind. What we have kept and why we have discarded certain other things. Shows how people change their ideas, their way of life and influences which help to bring about change. Illustrated with good photographs of art objects, cities and architecture old and new.

THE AMERICAN LANDSCAPE: A CRITICAL VIEWNairn, Ian; Random, 1965.

- 10-12 Basically a picture book in which an Englishman shows what is wrong and in some cases, right in the American landscape. He travelled across the country taking pictures, so using actual examples, he points out the need for careful urban planning and the preservation of the natural environment.

THE AMERICAN AESTHETICOwings, Nathaniel; Harper, 1969.

- 10-12 Distinguishes what we have to build on through a panorama of stunning photographs. Contends Americans in the past have done badly in controlling the environment but if drastic action is demanded, we can be optimistic about the future.

THE ONLY EARTH WE HAVEPringle, Laurence; Macmillan, 1969.

- 4-9 A timely book which focuses on problems of water and air pollution and other problems brought about by twentieth-century technology. Illustrated with photographs, contains glossary and index.

COLORSReiss, John J.; Bradbury, 1969.

- K-3 Beautifully provides color theory on an elementary level and, at the same time, supplies visual enjoyment.

CITY IN THE SUMMERSchick, Eleanor; Macmillan, 1969.

- K-3 Detailed pictures lucidly reflect life in the city environment during the hottest days of the summer.

HOW PEOPLE LIVE IN THE BIG CITY

Stanek, Muriel; Benefic, 1964.

4-6

City life in its many forms is described in this textbook. Schools, recreation, housing and public services are some of the topics discussed. Adequately illustrated with photographs and drawings. Simple vocabulary.

A I A COPE FOR EDUCATORS

2.3.4.27

BOOKS: ACTIVITY RESOURCES

DIVERSIONS AND PASTIMES

Abraham, R. M.; Dover, \$1.00

A "things to do book" helpful in developing class projects.

THE HOW AND WHY WONDER BOOK OF BUILDING

Barr, Robert; Grosset & Dunlap.

Paperback that "children in Structures classes have enjoyed."BUILDING AN IGLOO

Education Development Center, Cambridge, Mass.

16 illustrations depicting how to build an igloo.

CARDBOARD CARPENTRY

Education Development Center, Inc., 55 Chapel Street, Newton, Mass. 02160., 39 pp., illus.

Pamphlet with photos of cardboard toys, furniture, etc., being constructed by teachers and upper elementary children. Some techniques are shown. Obtain book and further information from publisher.

IT'S SO SIMPLE - CLICK + PRINT

Education Development Center, Inc., 55 Chapel Street, Newton, Mass. 02160, 1969, 22 pp.

4-6

Pamphlet written and illustrated by 6th grade children on how to take and develop photographs.

STRUCTURES

Elementary Science Study of Education Development Center, Inc., 55 Chapel Street, Newton, Mass. 02160, 1968, Trial Teaching Edition, 36 pp.

All Ages

A pamphlet giving inspiration, materials technique, and examples of constructions out of clay, straws and pins, paper tubes. It includes projects such as bridges, test stands and community constructions (model cities).

THE CITY BOOK

- Freedman, Dorothy and Geraldine Richelson; Harlin Quist, Inc., \$1.95.
- All Ages A collection of puzzles and games and stories and riddles, designed to make children aware of their city.

MAPPING

- Greenhood, David; University of Chicago, \$2.95.
- 4-12 No other medium carries as much information accessible at a single glance as do maps. This book serves as an introduction to map use, construction and meanings.

THE MYSTERIOUS FLEXAGONS

- Jones, Madeline; Crown, \$1.95.
- 3-12 A "How to" book about the making of paper flexagons and some information about their geometry. Fascinating.

HOW TO BUILD AN IGLOO

- Koppers Company, Inc., Koppers Building, Pittsburgh, Pa. 15219.
- All Ages Brief discussion of the Eskimos' social structure and architecture.

TANGENTS IX

- Koppers Co., Inc., Koppers Building, Pittsburgh, Penn. 15219.
- All Ages How to design a home when the most important thing you will ever own is an egg.

PAPER ART and CONSTRUCTIONS

- Whitman Publishing Co.
- Both "offer a wide range of building ideas that children will find easy to understand."

ARCHITECTURE: A BOOK OF PROJECTS

- Wilson, Forrest; Reinhold, \$6.95.
- A book of projects helpful in understanding structural principles, classic symmetry, scale and space. Extremely helpful for classroom building and construction projects.

CARDBOARD CARPENTRY, DRAWINGS AND SKETCHES

The Workshop for Learning Things, 55 Chapel St.,
 Newton, Mass. 02160, 21 pp.
 A booklet with suggestive ideas.

CARDBOARD CARPENTRY WORKSHOP

The Workshop for Learning Things, Newton, Mass.
 "Tells of many of the experiences adults have
 had as they discovered the many uses for this
 cardboard in a teacher-training workshop."

CATALOG

The Workshop for Learning Things, Newton, Mass.
 Includes kits to do cardboard carpentry, mech-
 anical building, soapstone carving, photography
 and list of publications on the same subjects.

LATER ADDITIONS:

FUN WITH SHAPES IS SPACE

Hughes, Toni; Dutton, 1960.

Instructions for making three-dimensional con-
 structions including string constructions. Direc-
 tions are easy to follow and utilize materials
 that are readily available; string, wire, card-
 board, sticks.

CREATING WITH PAPER

Johnson, Pauline; University of Washington Press,
 Seattle, 1958.

Using paper as a creative art medium, methods
 of bending, folding, scoring are explained be-
 fore getting into instructions for making models,
 geometrics, solids and moving forms. Profusely
 illustrated with photographs and drawings clear-
 ly showing how to construct examples shown in
 the book.

THE ART OF THREE DIMENSIONAL DESIGN

Wolchonok, Louis; Harper, 1959.

A how-to-do-it book that shows how to create
 three dimensional design using basic geometric
 shapes.

BOOKS: RESOURCES FOR TEACHERS

THE CULTURAL RESOURCES OF BOSTON

The American Federation of Arts, N. Y.; The Institute of Contemporary Art, Boston, 1965; distributed by October House, Inc. Map. Biblio., 5-1/4 x 8-1/2", 136 pp., 72 illus., \$2.00 paperback, \$5.00 hardback.

Articles covering drama, music, libraries and fine printing, the visual arts, architecture and the sciences. Institutional and gallery listings.

COMMUNITY AND PRIVACY

Chermayeff and Alexander; Doubleday Anchor, 1963, \$5.95 hardback, \$1.75 paperback.

Carefully researched and detailed analysis in which the authors propose a new type of urban order. In that order clearly defined domains are structured so that specific needs can be fulfilled without interfering with other activities in both public and private environments responsive to the humanness of man.

THE CITY IS THE PEOPLE

Churchill, Henry S.; Norton, 1962, 210 pp., illus.

A planner looks at current urban problems against the background of world antecedents, and American precedents. Thoughtful reading.

CHILDREN OF CARDOZO -- TELL IT LIKE IT IS

Education Development Center, Inc., Cambridge, Mass., 1968, 48 pp.

Compiled from the "questions, writings, and drawings of Model School Division Children, grades 1 - 8, District of Columbia Public Schools." Excellent example for teachers, of creative writing and art which express deep feelings of the participating students.

TAMING MEGALOPOLIS

Eldridge, H. Wentworth; Doubleday Anchor, \$2.45.

Two volume collection of more than 60 experts in their respective fields. Volume One is concerned with what the megalopolis is today and what it could be in the future. Volume Two discusses how to manage in an urbanized world.

An excellent collection of essays that brings together a diversity of ideas about the complex process of change as the world modernizes and urbanizes.

ENVIRONMENT AND CHANGE: THE NEXT FIFTY YEARS

Ewald, William R., Jr., Editor; Indiana University, 1968, 397 pp., \$4.95 paperback.

Great issues of the day discussed by important thinkers. Seeks to define the human scope of the term "environment," the forces of change, the competence we have so far developed to cope with change, the roles of the individual society, youth, and technology in the future.

Essentially philosophical, a collection of papers sponsored by the American Institute of Planners.

ENVIRONMENT AND POLICY: THE NEXT FIFTY YEARS

Ewald, William R., Jr., Editor; Indiana Univ., 1968, 459 pp., \$4.95 paperback.

The great issues of the day discussed by noted thinkers. A collection of papers sponsored by The American Institute of Planners deals with the coordination of the forces that shape the modern city. Two comments follow each paper. Examples are Lynch's "The Possible City," dealing with physical and esthetic form as they serve human urban life; and Abram's "Housing in the Year 2000" which is challenged by Eberhard.

ENVIRONMENT FOR MAN: THE NEXT FIFTY YEARS

Ewald, William R., Jr., Editor; Indiana Univ.,
\$2.95.

A collection of papers written during the first half of a two-year research project conducted by the American Institute of Planners during which they hoped to define and begin working toward "Optimum Environment with Man as the Measure." Concern for integrating science with society during the next fifty years is expressed through these writing of microbiologists, architects, psychologists and others.

OPERATING MANUAL FOR SPACESHIP EARTH

Fuller, R. Buckminster; S. Illinois Univ., 1968, \$4.25

Although a succinct summary of what has been on this futurist/architect's mind for years, both his illusory language and complex message make demands on intellect. It is a short work in which he considers the planet Earth as a traveling spaceship. He has an overview well into the 21st century.

BEYOND THE MELTING POT

Glazer, Nathan; and Daniel P. Moynihan, M.I.T.,
1963, 360 pp.

Housing and neighborhoods are part of this sociological study of the influences of the values of five ethnic groups on the city (here New York.) The Negroes, Puerto Ricans, Jews, Italians and Irish are considered.

COMMUNITAS

Goodman, Paul and Percival; Vintage, \$1.45.

The authors, one a novelist, critic and playwright, the other an architect and professor, analyze city plans of the past and consider alternatives of the future. They offer a guide to the thoughtful planning of cities that provides a means of livelihood and a way of life. The book is witty, penetrating and quite easily read.

SYNECTICSGordon, William J.; Collier Books, \$1.25.

The result of 15 years experimentation in the training of creative capacities. The synectics theory holds that people can be more creative in developing solutions to problems of science, education, and the arts, if they understand the psychological process by which they work.

While studying our man-made environment we can employ the synectic process of making the strange familiar and making the familiar strange as a fresh approach to seeing what we look at every day.

MEGALOPOLISGottmann, Jean; M.I.T., \$3.95, illus.

As a study of the Northeastern Seaboard of the United States today and how it grew into a continuous stretch of urbanization, this book offers insight into this unique region. It is a statistical work, crammed with facts and is not easy reading.

GARDEN CITIES OF TOMORROWHoward, Ebenezer; M.I.T., \$1.95.

A classic, originally published in 1898. Howard considered the development of a balanced community one in which the urban and rural patterns and functions are interrelated. His utopian urban concept is still respected by city planners as they re-evaluate the city's structure through its needs.

THE DEATH AND LIFE OF GREAT AMERICAN CITIESJacobs, Jane; Random House, \$5.95.

A remarkable work that suggests what gives life and spirit to a city and what makes a city work. The author concludes that the very elements that make a city function from a humanist's point of view are the ones that city planners frequently eliminate when rebuilding our cities. She considers some of the dangers of change as perceived through conventional redevelopment practices. An excellent readable book of general observations on the city.

THE YEAR 2000

Kahn, Herman and Anthony J. Wiener; MacMillan, \$9.94

A framework for speculation on the next thirty-five years, this book contains most of the basic methodology of future study through statements of multifaceted trends, projections, scenarios. The accuracy of the author's projections can not be known at this time but their current statistics and fantasies are possibly the most thorough we have at this time.

CHILDREN AND ARCHITECTURE

Kutsenkov, F. Corrine; Master of Architecture

Thesis, University of California, Berkeley.

Written with the aim of advancing "visual literacy in our society," chapters on the "Potential of Children" and suggestions for the "Structuring of an Architectural Program" would be thought-provoking for anyone developing environmental awareness programs.

THE IMAGE OF THE CITY

Lynch, Kevin; M.I.T., \$2.95.

The author delves into the value of "Imageability" as a potential guide for the building and rebuilding of cities. He identifies the elements of the environment and then discusses how we are affected by our visual perceptions of them. A short, very interesting book.

TWO BLOCKS APART

Mayerson, Charlotte Leon; Avon, \$.60.

The lives of two boys, from New York City, Juan Gonzales and Peter Quinn, are contrasted in this short book that was edited from a series of tapes made during interviews. Although they live only two blocks apart, they don't know each other and are separated culturally by worlds. How they respond to their home, school and neighborhood is very enlightening as we learn how the environment affects them.

THE URBAN PROSPECT

Mumford, Lewis; Harcourt, Brace & World, \$2.45.

This book offers one well-respected authority's concept of the modern metropolis and the problems it faces today and tomorrow as well as his proposal for a new urban form that provides for social complexity without destroying the land and its inhabitants.

THE WHOLE EARTH CATALOGUEPa. Portola Institute, Inc., \$4.00.

The Whole Earth Catalogue functions as an evaluation and access device and lists in its continuously updated issues, books or items that are useful as tools relevant to independent education. Its table of contents is divided into the categories of Understanding Whole Systems, Shelter and Land Use, Industry and Craft, Communications, Community, Nomadics, Learning. It is indispensable as a tool for procuring current information.

MEDIEVAL CITIESSaalman, Howard; George Braziller, \$2.95.

A critical look at the medieval city and the economic, social and political forces that shaped it.

STRUCTURE IN ARCHITECTURESalvadori, Mario and Robert Heller; Prentice-Hall, 1963, illus.

An exposition of ways to span space.

MAN IN METROPOLISSchlivek, Louis B.; Doubleday, \$7.50.

A non-fiction book about fifteen individuals and how they interact with their environment. Each person relates to the city from a different social and economic position.

THE FITNESS OF MAN'S ENVIRONMENTSmithsonian Institution Press, \$5.95.

A collection of papers that were delivered at the 1967 Smithsonian Institution's Annual Symposium. The authors, biologists, architects, anthropologists, and others, all feel that man can no longer afford to alter his environment in fragmented unrelated actions without developing new guidelines for these changes.

RESEARCH AND DEVELOPMENT: ADVANCES IN EDUCATION

U. S. Dept., of Health, Education, and Welfare:
Sup't., of Documents, Wash., 20402, 107 pp.,
illus., \$1.50.

Vignettes showing how some of the innovative educational programs supported by the Office of Education's Bureau of Research are "making a significant contribution to the improvement of learning." Some related to environment.

PLANNING FOR A NATION OF CITIES

Warner, Sam Bass, Jr.; M.I.T., \$2.95.

A collection of short essays concerning the challenges confronting our cities. The authors go beyond the immediate problems of urban renewal and the antipoverty program. They consider a possible trillion dollar transformation of our cities into interacting environments rather than physically and financially independent centers of activity. They approach the problems of mobility, management and politics creatively.

LATER ADDITIONS:

THE LANDSCAPE WE SEE

Eckbo, Garrett; McGraw, 1969.

A detailed look at "the processes which shape the landscape, both in quantity and quality." An excellent bibliography.

PRIMER OF PERCEPTION

Gordon, Stephen and Jenifer Wyman; Reinhold, 1967.

Uses photographs to teach visual awareness. Included are four units pertaining to one area of "perceptual experience." Very little text.

ADVENTURE INTO ARCHITECTURE

Grad, Bernard J.; Arco, 1968.

A look at the world of the architect, his education, what he does and how he works. For career orientation and for layman's knowledge of those shaping our environment.

THE HEART OF OUR CITIESGruen, Victor; Simon and Schuster, 1964.

The planner architect discusses what makes a city, what are its problems and what can perhaps be done about them.

ARCHITECTURAL ENVIRONMENT AND OUR MENTAL HEALTHMoller, Clifford B.; Horizon Press, 1968.

How the well-being of man is affected by architectural environment and the use of space. The author hopes to "offer a philosophical approach to architecture, a redefinition that can provide significant help towards planning our urban environment."

SURVIVAL THROUGH DESIGNNeutra, Richard; Oxford, 1954.

Contends that man must sensibly design his cities, homes and everyday objects to make his environment habitable.

AMERICAN ARCHITECTURE AND URBANISMScully, Vincent; Praeger, 1969.

A history of architecture and city planning in America written by a distinguished architectural historian. Interesting reading and a useful reference book.

MAN-MADE AMERICA: CHAOS OR CONTROL?Tunnard, Christopher and Boris Pushkarev; Yale University Press, 1963.

A careful look at the urban-rural fringe areas that fill the space between cities. With a "minimum of forethought and a modicum of taste and a reasonable outlay of public and private funds these vast vistas can be transformed into something a little less hideous to look at." Intended for professionals but useful for laymen.

PERIODICALS

Teacher
Resource"MAN'S RESPONSE TO THE PHYSICAL ENVIRONMENT"

G. W. Winkel

A.I.A. Journal 48:93-4, September 1967."COMPREHENSION OF THE EVERYDAY PHYSICAL ENVIRONMENT"

K. H. Craik

American Institute of Planners Journal 34:29-37, January 1968."ENVIRONMENTAL EDUCATION FROM KINDERGARTEN ON UP"

E. P. Berkeley

Architectural Forum 130:46-53, June 1969."EXPRESSIVE ENVIRONMENT"

S. Brower

Architectural Forum 124:38-0, April 1966."REFLECTIONS ON ENVIRONMENT"

B. Thompson

Architectural Record 139:110-20, January 1966."VISUAL SQUALOR, SOCIAL DISORDER OR A NEW VISION OF THE 'CITY OF MAN' "

B. Thompson

Architectural Record 145:161-4, April 1969."THE WORLD AROUND US: TOWARD AN ARCHITECTURE OF JOY AND HUMAN SENSIBILITY"

B. Thompson

Architectural Record 142:153-8, September 1967."CREATING AN ENVIRONMENT"

P. B. Johnson

Art Education 21:16-18, December 1968.

- Teacher
Resource
- "DESIGN AND ALIENATED YOUTH"
H. L. Cohen
Art Education 21:24-5, June 1968.
- "DEVELOPING ENVIRONMENTAL AWARENESS IN THE SCHOOLS"
J. Tanzer and others.
Art Education 19:28-31, November 1966.
- "PRAGMATIC APPROACH TO THE TEACHING OF ENVIRONMENTAL DESIGN"
R. B. Kannegieter
Art Education 20:11+, December 1967.
- "WE LOOK; WE DO NOT SEE"
F. V. Mills
Arts and Activities 64:14-18, September 1968.
- PARENT/TEACHER GUIDE TO SESAME STREET
The Children's Television Workshop, 1865 Broadway,
New York, N. Y. 10023. Subscriptions \$2.00/
yr: Guide, Box 9070B, St. Paul, Minn. 55177.
Many of the books and activities listed are excellent
environmental awareness materials.
- "ENVIRONMENTAL DESIGN: AN INTRODUCTION"
M. Jay
Design no. 218:44-9, February 1967.
- "ENVIRONMENTAL PERCEPTION: CAN SCIENCE REALLY HELP"
P. Jay
Design no. 220:52-5, April 1967.
- "ECOLOGY: MAN SHAPES HIS ENVIRONMENT"
Progressive Architecture 48:51-5, September 1967.
- "MAN AND THE SPACE AROUND HIM"
C. A. Doxiadis
Saturday Review 51:21-3, December 14, 1968.

- Teacher "AESTHETIC DIMENSION OF ENVIRONMENTAL RE-
Resource SPONSIBILITY; A PROPOSAL FOR CURRICULUM IN-
 NOVATION IN AESTHETIC EDUCATION
 R. A. Smith
 School Arts 65:20-2, April 1966.
 (Grades 7-12)
- "DESIGN: A WAY OF SEEING"
 School Arts 67:21-8, January 1968.
- "DRAWING FOR ENVIRONMENTAL AWARENESS "
 A. P. Taylor
 School Arts 68:12-13, March 1969.
- "THE RENEWAL OF CITIES"
 Glazer
 Scientific American, September 1965, pp. 195-204.
 Extremely worthwhile reading on the subject
 of urban renewal.
- "CAN MAN SURVIVE LIFE IN BIG CITIES?"
 U. S. News and World Report 62:64-7, May 1, 1967.
 An interview with Rene Dubos.

FILMS AND FILMSTRIPS
Of General Interest

THE AQUARIUM

National Fisheries Center and Aquarium,
Dept. of Interior, Rm. 2013, 18th &
C Sts. N.W., Wash., D. C. 20240, 1967,
15 min. color.

A sensitive, beautifully conceived and photographed film which delineates the architects' (Roche and Dinkeloo) philosophy and preliminary studies for the new national aquarium.

ALEXANDER CALDER: SCULPTURE AND CONSTRUCTIONS

Museum of Modern Art, 1944, 11 min.

How Calder interprets, with wire and metal mobiles and motorized constructions, his concept of time, space and movements; and how his work is related to other contemporary art.

ANTONIO GAUDI

Sale: Center for Mass Communication, Columbia Univ. Rent: Yeshiva Univ. Film Library, 27 min., color.

The Spanish architect's highly fanciful play park, and building environments. Insights into a very creative man.

ART AND MOTION

Encyclopedia Britannica Educational Corp.;
1952, 14 min., color.

Imaginative explanation of the principles of motion as expressed in modern art.

ART HERITAGE

Standard Oil Co.; 28 min., color.

ART IN OUR WORLD

Film Associates; 11 min., color.

What to look for in art and how to interpret it.

THE ART OF SEEING

Warren Schloat; 6 filmstrips, color, sound.

Includes: "How to Use Your Eyes," Parts I & II, "Lines, Colors, Shapes, Space."

These filmstrips explore the mysteries of the artist's language and the vocabulary of the visual.

ART - WHAT IS IT? WHY IS IT?

Encyclopedia Britannica Educational Corp., 30 min., color.

BELO HORIZANTE

U. S. Office of Inter-American Affairs, 1944, 18 min.

Story of Brazilian city which was planned before a single house or street was built.

BIG CITY - U.S.A.

Eye Gate House, Inc., 1968, filmstrip.

Eight filmstrips which depict life in a big city. Others are:

"Housing in Big City"	"Police Protection"
"Food for Big City"	"Fire Protection"
"Big City Workers"	"Public Utilities"
"Fun and Recreation"	

BUILDING LINES

International Film Bureau; 1963, 4 min., b/w.

CALIFORNIA

Modern Talking Picture Service, Inc., 28-1/2 min., color.

CALIFORNIA: THREE IMAGES - 1966

California Council, A.I.A.; 25 min., color.

CAMPING - A KEY TO CONSERVATION

Indiana Univ. Audio-Visual Center, 1963, 23 min.

A discouraging view of the widespread misuse of public recreation facilities by careless citizens is followed by good camping practices as learned by a thirteen-year old boy on his first overnight camping trip.

THE CHANGING CITYChurchill Films; 1963, 16 min., color.

Describes the economic, social and cultural advantages of the city that have caused its enormous growth; contrasts the advantages of new suburban homes with some of the serious problems raised by their proliferation; discusses the problems created by the automobile and the rehabilitation of the decaying core of the city, and considers the need for coordinated planning among conflicting districts and jurisdictions.

CITIES IN CRISIS: WHAT'S HAPPENING?Universal Education and Visual Arts; 196821 min., color.

An impression, without words, of a large American city allows the viewer to identify urban problems and prompts him to consider solutions. Without listing the problems, the camera tour focuses on housing, highways, shopping, entertainment, air pollution, architecture, air traffic, people - the gamut.

CITY BY DESIGNJohn C. McComl; 27 min., color.An Alcoa Project.THE CITY COMMUNITYEncyclopedia Britannica Films, Inc.; 1950

Set of films which show aspects of life in the city. Included are:

"The Future of Our Town"	"How Our Town Grew"
"Living in the City"	"Working in the City"
"Business in the City"	"Problems of the City"
"Here is the City"	"Keeping the City Alive"

CITY IN TROUBLEStuart Finley, Inc., 1960, 20 min., color.

Washington, D. C. problems and attempts at planning.

A CITY IS MANY THINGS

Churchill Films; 5 filmstrips, color, silent.

This filmstrip portrays an urban child's introduction to his environment.

A CITY REBORN

Sterling Movies, Inc.; 1966, 21 min., color.

A chronological view of the problem of the mall in Fresno, Calif., past, present and future.

CONSERVATION AND OUR FORESTS

Film Associates; 15 min., color or b/w.

CONSERVING OUR NATURAL RESOURCES

Film Associates; 17 min., color or b/w.

CONSIDER THE CHALLENGE

Association Films, Inc.; 14 min., color.

EERO SAARINEN ARCHITECT

Center for Mass Communication, Columbia Univ., 29 min.; color.

ELEMENTS OF ART

Curriculum Films, Inc.; 1952.

A series of filmstrips which explain the basic concepts of art. Included are:

"Lines	"Proportion"
"Shapes	"Color"
"More Shapes"	"Using Color"
"Solid Shapes"	

EXHIBITION IN MOSCOW

Herman Miller, Zeeland, Mich., 49464; 1959, 55 min., color, available at no charge.

Despite this film being 11 years old, it is an excellent, interesting, detailed, and beautifully photographed portrait of Moscow - its parks, streets, boulevards, and people.

THE ENCHANTING BUSCH GARDENS OF LOS ANGELES

Modern Talking Picture Service, Inc.,
13-1/2 min., color.

EXPRESSIONISM

Film Associates; 7 min., color.

FAST IS NOT A LADYBUG

Film Associates; 1958, 11 min., color.

An explanation for young children of the meaning of fast and slow, based on the book of the same title by Miriam Schlein. Illustrations by Leonard Kessler show that "slow is like a ladybug crawling on a leaf," and "fast is like a ball when you throw it." Also develops a subjective way of thinking about relative speeds: the fun of going fast and the nice feeling of being lazy sometimes.

FIDDLE DEDEE

Film Associates; 4 min., color.

GRAND CANYON

Dudley Pictures; 1947, 20 min., color.

A survey of the geological and scenic highlights of the Grand Canyon and a glimpse of the Havasupai Indians.

HENRY MOORE: A MAN OF FORM

Film Library; 28 min., b/w.

HERITAGE OF SPLENDOR

Alfred Higgins; 1963, 18 min., color.

A beautifully photographed argument for the need to conserve our parks and recreation areas, and to keep them free from litter. Shows the importance of these natural resources for man's refreshment today and for generations to come.

HOUSING AND NATURE

Tribute Films; 1966, 24 min., color.

Produced by the Embassy of Finland; a handsome, sensitive survey of the urban problems in Helsinki which are not as perplexing as those in this country. Beautiful photography and graphics enhanced by the unfamiliar locale. An engaging treatment of a subject which is frequently recorded with a heavy hand.

HOW TO LOOK AT A CITY

George C. Stoney Assoc.; 1964, 29 min.

Against the kaleidoscopic background of New York City's tenements, bustling.

HOW TO MAKE A MASK

Film Associates; 11 min., color.

THE LANGUAGE OF CITIES: VISUAL AID
SUPPLEMENT

See: Bibliography Books: Students Resources,
Hosken, Franziska.

LINES

Caswell C. Elkins Co.; filmstrip, 27 frames,
color.

LINES HORIZONTAL

National Film Board of Canada; 1961, 6 min.,
color.

Animation of lines by Norman McLaren and Evelyn Lambert.

MAKING A MURAL

Encyclopedia Britannica Educational Corp.;
11 min., color.

The complete process of making a Kansas City department store mural by Thomas Hart Benton.

MAKING A MURAL

McGraw-Hill Book Co.; filmstrip 39 frames,
color.

MAKING MARIONETTES AND PUPPETS

Encyclopedia Britannica Educational Corp.;
filmstrip.

MAN MAKES A DESERT

Film Associates; 10-1/2 min., color or b/w.

MAYA OF ANCIENT AND MODERN YUCATAN

Film Associates; 2nd edition, 20 min., color.

MEGALOPOLIS - CRADLE OF THE FUTURE

Encyclopedia Britannica Films; 1962, 20 min.
Produced by the Twentieth Century Fund,
a factual statement of the problems of the
city dweller and the necessity for planning.

MONUMENT TO THE DREAM

Association Films, Inc.; 1967, 27 min., color.
Excellent record of the conception, planning,
and construction of Saarinen's Gateway Arch
in St. Louis.

NATURE'S PLAN

Encyclopedia Britannica Films; 1953, 15 min.,
color.
Shows principles of natural water cycle from
sea to air to earth and back.

NEW EARTH

Joris, Ivens; 1944, 22 min.
Ten-year reclamation project in which
sections of the Zuider Zee in Holland were
filled in to create 500,000 acres of new
land.

NON-OBJECTIVE ART

Film Associates; 8 min., color.

NO TIME FOR UGLINESS

American Institute of Architects; 1965, 24 min., color.

Explores the way in which the population explosion and the indiscriminate construction of living and working spaces have defaced the landscape in both urban and suburban areas. Using various types of communities throughout the United States, examples of ugly cities and misuse of land are contrasted with places where interested residents have transformed the environment, or where it was originally planned with foresight and imagination. An effective sequence contrasts the polluted Potomac River with the rehabilitated Arneson River running through San Antonio, Texas. A forceful plea for citizens to see clearly how their environment can be improved, and to encourage changes.

OPEN SPACE, GOING...GOING...

Modern Talking Picture Service; 1969, 28 min., color, available free loan.

Produced by HUD, illustrates urgent need for acquiring open spaces in rapidly growing areas, new ones in inner-cities and suburbs.

ORANGE AND BLUE

McGraw-Hill Book Company; 1961, 15 min., color.

Two balls bounce around a junkyard expressing curiosity, joy and other children's emotions.

THE PLANNED TOWN

Contemporary Films, Inc.; 1950, 15 min., b/w.
Impressive film based on Ebenezer Howard's Garden Cities.

POLLUTION

Astrafilms, Inc., National Medical Audio-Visual Center; 1968, 4 min., color.

Tom Lehrer sings satirical calypso-type lyrics describing the extent and the threat of air and water pollution in the United States, while the camera scans nauseating scenes of filth, garbage, smoke, dirty water, and industrial waste. A memorably effective message.

QUETICO

Christopher Chapman; 1959, 22 min., color,
Solitary canoe trip across the lakes of Quetico.

RIGHT OF WAY

Sterling Movies; 1968, 13-1/2 min., color.

Shows how highways can ruin cities and how through good design and relation to other elements in the urban fabric, highways can be employed to improve urban areas.

SCHOOLS ARE BUILT FOR LEARNING

Modern Talking Picture Service, #2827; 20 min., color.

SKYSCRAPER

Brandon Films, Inc.; 23 min., b/w.

S.O.S. GALAPAGOS

UNESCO, Contemporary Films; 1965, 17 min., color.

The ancient animals of the Galapagos Islands, holding part of the story of evolution, are threatened with extinction because of human intrusion. A project to preserve them is shown being undertaken jointly by UNESCO, the Government of Ecuador and the Charles Darwin Foundation. As the scientists conduct their research and experiments, there are views of exotic creatures such as the huge turtles, amphibious iguana, giant pink crabs, sea lions, albatross, frigate birds and other varieties of sea birds.

A STUDY IN FORMAssociation Films, Inc.; 7 min., color.SUBURBAN LIVINGNational Film Board of Canada; 1960, 58 min.,
Comparison of experimental, non-luxury
housing developments in foreign cities.TOWNSCAPE REDISCOVEREDCommunity Improvement Program, Centennial
Commission, 524 Gloucester St., Ottawa 4,
Ontario, Canada; 1966.The urban renewal accomplishments in a
city of 60,000, Victoria, B. C.TRANSPORTATION - JAPANESE LIFE SERIESFilm Associates; super 8mm, color.24TH AND TOMORROWFrederick Martin, ACI; 22 min.

Story of a one-man crusade against the decay of his New York neighborhood is given dramatic documentation through modest understatement. Beginning by picking up litter on his own block of 24th St., the man is then joined by others and eventually they form a Neighborhood Improvement Assn. They turn their attention to refuse disposal, housing maintenance, citizen enlightenment and even tree-planting. The area not only becomes cleaner and more attractive, but a friendlier place as all the residents work together in the grass-roots project.

VAN GOGH - DARKNESS INTO LIGHTMcGraw-Hill; 8 min., color.WATERCenter for Mass Communication; 1961, 15 min.,
color.Animated drawings and live action used to
describe and suggest solutions for a world
water crisis.

THE WING ON A FLEA

Weston Woods.

A filmstrip version of Ed Emberley's
delightful picture book about shapes.

WHY MAN CREATES

Modern Talking Picture Service; 1968, 25 min.,
color.

A beautifully photographed, imaginatively
produced, and intriguing film. Depicts
the work, obstacles, frustration, and
accomplishments of the creative man in
a wide spectrum.

WINGS ON THE WIND

Roy Wilcox Productions, Inc.; 1961, 14 min.,
color.

The unique habits of a variety of birds
shown in slow-motion.

WORLD IN A MARSH

National Film Board of Canada; 1958, 22 min.,
color.

Activities of the marshland inhabitants.

YUCATAN: LAND OF THE MAYA

Film Associates; 1962, 17 min., color.

Mayan ruins and Mayan influences today.

LATER ADDITIONS:

A DIFFERENT KIND OF NEIGHBORHOOD

Universal Education; color, 21 min.

Problems of urban renewal, importance of
city planning and how they affect the popu-
lation.

URBANISSIMO

Contemporary/McGraw; 8 min., color.

A humorous commentary on the modern ur-
ban civilization. The city personified as a
boulevardier, proceeds to destroy the en-
vironment while watched by an old farmer.

FILMS / FILMSTRIPS

By Grade Level

Primary/
ElementaryAIR: A FIRST FILM

Film Associates; 1968, 9-1/2 min., color.

Importance of air to life on earth.

BIRDS OF THE SANDY BEACH: AN INTRODUCTION TO ECOLOGY

Film Associates; 1965, 10 min., color.

Varied characteristics of birds that permit them to live together on an ocean beach.

BUTTERFLY

Film Associates; 1968, 9 min., color.

Life cycle of a butterfly. No narration.

CLOUDS: A FIRST FILM

Film Associates; 1966, 9-1/2 min., color.

Observations about clouds.

FINDING YOUR WAY TO SCHOOL SAFELY: A FIRST FILM

Film Associates; 1966, 9-1/2 min., color.

LOOK AT THAT!

Film Associates; 1969, 10-1/2 min., color.

The basic art elements of line, form, pattern, texture and color are pictured and defined. Emphasis on discovery in child's everyday environment.

THE OCEAN: A FIRST FILM

Film Associates; 1968, 11 min., color.

Influence of the ocean on all living things.

THE PROCESS OF SCIENCE: CLASSIFYING SERIES

Film Associates; captioned filmstrips.

"Part One: Size", "Part Two: Shape", "Part Three: Color", "Part Four: Ways of Grouping".

THIS IS COLOR SERIESFilm Associates; film loops.Primary/
Elementary

Six 8 mm loops, each introduces a different color (orange, yellow, green, blue, purple) with a brilliantly photographed montage of familiar objects seen from unusual angles. Each loop approximately 3-1/2 minutes with study guide.

WATER: A FIRST FILMFilm Associates; 1968, 9-1/2 min., color.

Importance of water in our lives.

WIND: A FIRST FILMFilm Associates; 1966, 9 min., color.NO TIME FOR UGLINESSSterling Movies; (Produced by A.I.A.)

4 and Up

Award-winning film sets forth problems which beset nearly all of the big and some not-so-big communities.

'A' IS FOR ARCHITECTUREContemporary Films; 30 min., color.Elementary/
Jr. High

Review of history of architecture with good photography.

CHANGING ART IN A CHANGING WORLDFilm Associates; 1967, 21 min., color.

5-12

How an artist selects images from a changing world.

DESIGN IS A DANDELION SERIESFilm Associates; sound filmstrips.

Five filmstrips: Design in "Nature", "Form", "Texture", "Balance", "Rhythm".

DISCOVERING ART SERIESFilm Associates.

5-12

Discovering:

"Color," 16 min., color, 1960.

"Composition in Art" 16 min., color, 1964.

"Creative Pattern," 17 min., color, 1965.

"Dark and Light," 18 min., color, 1965.

"Form in Art," 21 min., color, 1967.

"Harmony in Art," 16 min., color, 1966.

"Ideas for Art," 15-1/2 min., color, 1965.

"Line," 17 min., color, 1963.

"Perspective," 14 min., color, 1962.

"Texture," 17-1/2 min., color, 1961.

"Junkyard," 10 min., color, 1969, No narration.

CITY SCENENational Film Board of Canada; 30 min., b/w.Elementary
Thru AdultELEMENTS OF ART: COLOR SERIESFilm Associates.

"Color and Space"

"Value and Intensity"

ELEMENTS OF ART: LINE SERIESFilm Associates.

"Line Techniques"

"Implied Line and Movement"

"Line and Space"

"Line as Structure, Texture, and Pattern"

"Characteristics of Curved, Vertical, Diagonal,
and Horizontal Lines"JEFFERSON, THE ARCHITECTInternational Film Bureau; 1950, 10 min., b/w.Brief look at Monticello and the University of
Virginia.RHYTHM AND MOVEMENT IN ARTFilm Associates; 1969, 18-1/2 min., color.Rhythm and movement are vital to life and
to art. The artist observes and studies life
movement of all kinds.

PEACE AND VOICES IN THE WILDERNESS

Film Associates; 1969, 9-1/2 min., color.

Jr. High
Thru Adult

Continuing problem of man's attempt to reconcile the difference between what life is like and what it ought to be.

MAN-MADE WORLD

International Film Bureau; color, with booklets, filmstrip.

High School

Includes "Environment," "Man and Machine," "Who Cares," and "Change Is Normal." Artistic photographs of landscapes, historic buildings and physical surroundings are employed in this attempt to encourage a critical attitude toward architecture.

WHY MAN CREATES

High School

Kaiser Corporation, Saul Bass.

THE CITY, CARS OR PEOPLE

Distributed by Sterling Educational Films; 1963, 30 min., b/w.

High School
and College

Study of transportation in New York, Paris and Rotterdam.

THE CITY: HEAVEN AND HELL

Distributed by Sterling Educational Films; 1963, 30 min., b/w.

International views and reviews of the city.

THE HEART OF A CITY

Sterling Educational Films; 1963, 30 min., b/w.

Historical and philosophical evaluation of the city.

HOW TO LOOK AT A CITY

N.E.T. Film Service; 1964, 30 min., b/w.

An outspoken architectural evaluation of the city. One of the eight-part "Metropolis, Creator or Destroyer?" series.

LATER ADDITIONS:

JOHN K. GALBRAITH: THE IDEA OF THE CITY

University at Large; sound, 28 min., color.

High School
thru Adult

Galbraith discusses "the new organic concept
of the modern city."

MARSHALL McLuhan: PICNIC IN SPACE

University at Large; sound, 28 min., color.

High School
thru Adult

McLuhan examines concepts of space --
interior space, visual space, outer space
and auditory space.

R. BUCKMINSTER FULLER: PRIMER OF THE
UNIVERSE

University at Large; sound, 28 min., color.

High School
thru Adult

Fuller presents his theories of the universe.

A I A C O P E F O R E D U C A T O R S

FILMS AND FILMSTRIPS Sources

ACI Productions
16 West 46th Street
New York, N. Y. 10036

Alfred Higgins Productions
9100 Sunset Blvd.
Los Angeles, Calif. 90069

American Institute of Architects
1735 New York Ave., N.W.
Washington, D. C. 20006

Association Films, Inc.
600 Madison Avenue
New York, N. Y. 10022

Brandon Films Inc.
200 West 57th Street
New York, N. Y. 10019

California Council, A.I.A.
1736 Stockton Street
San Francisco, Calif. 94133
(Attn: Melton Ferris, Exec.Sec'y)

Caswell C. Elkins Co.
P. O. Box 329
St. Helena, California

Center For Mass Communication
Columbia University
1125 Amsterdam Avenue
New York, N. Y. 10025

Churchill Films
662 North Robertson Blvd.
Los Angeles, California 90069

Contemporary Films
267 West 25th Street
New York, N. Y. 10001

Dudley Pictures Corp.
803 N. Rodeo Drive
Beverly Hills, Calif 90210

Ekbo, Dean, Austin Williams
145 Mission
San Francisco, California

Encyclopedia Britannica Films
38 West 32nd Street
New York, N. Y. 10001

Encyclopedia Britannica Educational
2494 Teagarden Street
San Leandro, California 94577

Film Associates
(Bailey-Film Associates)
11559 Santa Monica Boulevard
Los Angeles, California 90025

Film Library
Division of Continuing Education
131 Coliseum, University Campus
Corvallis, California

George C. Stoney Associates, Inc.
Brook Studios
Brookhaven, N. Y. 11719

International Film Bureau
332 South Michigan Avenue
Chicago, Illinois 60604

John C. McComb
Century City
Los Angeles, California

Kaiser Corporation
Kaiser Center
Oakland, California

McGraw-Hill Book Co
330 West 42nd Street
New York, N. Y. 10036

Modern Talking Picture Service
16 Spear Street
San Francisco, California 94105

A I A C O P E F O R E D U C A T O R S

Modern Talking Picture Service
927 19th Street N.W.
Washington, D. C. 20006

Modern Talking Picture Service
Sponsor Desk
1212 6th Avenue
New York, N. Y. 10036

Museum of Modern Art
11 West 53rd Street
New York, N. Y.

National Film Board of Canada
680 Fifth Avenue
New York, N. Y. 10023

N.E.T. Film Service
Indiana University
Bloomington, Indiana 47405

Roy Wilcox Productions, Inc.
Allen Hill
Meriden, Conn. 06450

Standard Oil Company
Public Relations Department
320 Market Street
San Francisco, California

Sterling Educational Films
241 East 34th Street
New York, N. Y. 10016

Sterling Movies, Inc.
Sunset Vine Tower
6290 Sunset Blvd.
Los Angeles, Calif. 90028

Sterling Movies, Inc.
43 West 61st Street
New York, N. Y. 10023

Stuart Finley, Inc.
3428 Mansfield Road
Falls Church, Va. 22401

Tribute Films, Inc.
38 W. 32nd Street
New York, N. Y. 11719

Universal Education and Visual Arts
221 Park Avenue
New York, N. Y. 10003

Warren Schloat
115 Tompkins Ave.
Pleasantville, N. Y. 10570

Yeshiva University Film Library
526 W. 187th Street
New York, N. Y.

University at Large
Chelsea House
70 W. 40th Street
New York, N. Y.

A I A C O P E F O R E D U C A T O R S

CURRENT PROJECTS INDEX

ELEMENTARY

Elementary (All Grades)

Arkansas Chapter, A.I.A.	1. 3. 1. 1
Connecticut Chapter, A.I.A. (through high school)	1. 3. 1. 1
Corpus Christi Chapter, A.I.A. (through Grade 9)	1. 3. 1. 2
Dallas Chapter, A.I.A. (through Graduate Students)	1. 3. 1. 2
Seattle Chapter, A.I.A. (through high school)	1. 3. 1. 6
EPOCH	1. 3. 2. 1
Northwest Art Project, Seattle	1. 3. 2. 1
Southeast Section, Wisconsin Chapter, A.I.A.	1. 3. 1. 7

Kindergarten

Urban Discovery Day Care Center	1. 3. 2. 4
Northern California Chapter, A.I.A. (through Grade 6)	1. 3. 1. 4
CEMREL (through Grade 12)	2. 3. 2. 4
Philadelphia Chapter, A.I.A. (through Grade 12)	1. 3. 1. 4
Creative Arts Center, Kansas City, Mo.	1. 3. 2. 2

Grades 1 - 3

Pasadena Chapter, A.I.A. (Grades 1 and 2)	1. 3. 1. 4
Southwest Washington Chapter, A.I.A. (Grade 3)	1. 3. 1. 6

Grades 4-6

Art Awareness Project, Little Rock (Grade 5)	1. 3. 2. 2
Bucks County Chapter, A.I.A. (Penn.)	1. 3. 1. 1
San Diego Chapter, A.I.A. (Grades 3-8)	1. 3. 1. 5
Junior Art Center, Los Angeles	1. 3. 2. 1
Berkeley, Calif. Public Schools	2. 3. 2. 1 0
Seattle Chapter, A.I.A.	1. 3. 1. 6

JUNIOR HIGH SCHOOL

Corpus Christi Chapter, A.I.A.	1. 3. 1. 2
Houston Chapter, A.I.A.	1. 3. 1. 3
Philadelphia Chapter, A.I.A.	1. 3. 1. 4
San Diego Chapter, A.I.A.	1. 3. 1. 5
Seattle Chapter, A.I.A.	1. 3. 1. 6
Berkeley Calif. Public Schools	2. 3. 2. 1 0

HIGH SCHOOL

Connecticut Chapter, A.I.A.	1.3.1.1
Seattle Chapter, A.I.A.	1.3.1.6
Westchester County Chapter, A.I.A. (N.Y.) (through Junior College)	1.3.1.7
Southeast Section, Wisc., Chapter, A.I.A.	1.3.1.7
Lake Geneva, Wisc., A.I.A. Member	1.3.1.8

JUNIOR COLLEGE

New Mexico Southern Chapter, A.I.A.	1.3.1.3
Westchester County Chapter, A.I.A. (N.Y.)	1.3.1.7

COLLEGE AND UNIVERSITY

Harvard University	2.3.2.2 0
M.I.T.	2.3.2.2 0
University of Oregon	2.3.2.2 0
University of Colorado	2.3.2.2 0
Southeast Section, Wisc. Chapter, A.I.A.	1.3.1.7

TEACHER TRAINING

Baltimore Chapter, A.I.A.	1.3.1.1
Dallas Chapter, A.I.A.	1.3.1.2
New Jersey Society of Architects	1.3.1.3
University of Oregon	2.3.2.2 1
University of California	2.3.2.2 1
Regional Arts and Crafts Center, Harrison, Arkansas	1.3.2.2

COMMUNITY

Camp Fire Girls Program	1.3.1.8
Review of School Textbooks	1.3.1.8
Slide Show: Central Arizona Chapter, A.I.A.	1.3.1.1 0
California Council, A.I.A.	1.3.1.9
Washington State Council, A.I.A.	1.3.1.9
Competition: Toledo, Orange County, Northern California, Seattle Chapters, A.I.A.	1.3.1.1 0
Community Heritage: St. Louis Chapter, A.I.A.	1.3.1.1 0

ART SENSITIVITY

Northwest Art Project	1.3.2.1
Art Awareness Program, Little Rock	1.3.2.2
Regional Arts and Crafts Center Harrison, Arkansas	1.3.2.2
Creative Arts Center, Kansas City, Mo.	1.3.2.2
Westchester Chapter, A.I.A. (N.Y.)	1.3.1.7
Dallas Chapter, A.I.A.	1.3.1.2

TELEVISION

Boston	1.3.2.3
Philadelphia	1.3.2.3
Seattle	1.3.2.4
Southwest Washington Chapter, A.I.A.	1.3.1.6

INSTRUCTIONAL MATERIALS INDEX

GENERAL

- Films - California Council, A.I.A. 1.3.1.9
- Films - Washington State Council, A.I.A. 1.3.1.9

INFORMATION SOURCES

2.3.1

ERIC
SIPI
AIA
CEMREL

KINDERGARTEN

- GEE 2.3.2.2
- CEMREL 2.3.2.4
- Northern California Chapter, A.I.A. 1.3.1.4

ELEMENTARY

- Northern California Chapter, A.I.A. 1.3.1.4
- GEE 2.3.2.2
- Connecticut Chapter, A.I.A. 1.3.1.4
- CEMREL 2.3.2.4
- Pearlman 2.3.2.7
- Kettering Project 2.3.2.7
- Our Community - Madison, Wisconsin 2.3.2.8
- Curriculum in Visual Education 2.3.2.9
- Designs for the Future 2.3.2.10
- A Beginning Compendium of Spatially Oriented Exercises for the Child 2.3.2.10
- NEED 2.3.2.11
- Urban Action: Planning for Change 2.3.2.12
- "Where I Live Is Important to Me" 2.3.2.13
- Urban Affairs 2.3.2.14
- Our Working World 2.3.2.6

JUNIOR HIGH

- Connecticut Chapter, A.I.A. 1.3.1.1
- GEE 2.3.2.2
- CEMREL 2.3.2.4
- Madison, Wisconsin 2.3.2.8
- Curriculum in Visual Education 2.3.2.9
- Designs for the Future 2.3.2.10
- NEED 2.3.2.11
- Urban Action: Planning for Change 2.3.2.12
- Urban Affairs 2.3.2.14
- Model City Project 2.3.2.15
- CUE 2.3.2.16

HIGH SCHOOL

Connecticut Chapter, A.I.A.	1.3.1.4
GEE	2.3.2.2
CEMREL	2.3.2.4
Curriculum in Visual Education	2.3.2.9
NEED	2.3.2.11
CUE	2.3.2.16
Fragments: A Way of Seeing, A Way of Seeking	2.3.2.17
High School Geography Project	2.3.2.18
Phillips Academy	2.3.2.19

LATER ADDITION:

K-ELEMENTARY-JUNIOR HIGH

Gruen Foundation	2.3.2.22
------------------	----------